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SHARP 21E-FG3RU SERVICE MANUAL

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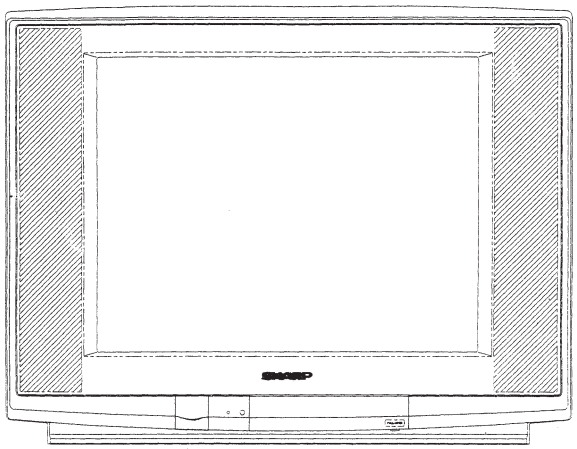
SHARP SERVICE MANUAL

S03J821E-FG3R



COLOUR TELEVISION

Chassis No. GA-2

MODEL 21E-FG3RU

In the interests of user-safety (Required by safety regulations in some countries) the set should be restored to its original condition and only parts identical to those specified should be used.

FEATURES

- Multi 21 Systems
- Full Auto Channel Preset and Auto Channel Skip
- 100-CH Program Memory
- CATV(Hyper Band) Ready <Used Frequency Synthesizer Tuner>
- Black Stretch Circuit
- On Timer/Sleep Timer/Reminder Timer
- Blue Back Noise Mute
- Front AV IN & Rear AV IN/OUT Terminals
- Component In
- Multi Language Fastext
- Front Headphone Jack
- Colour Comb Filter (NTSC Only)
- High Contrast Picture
- Hotel Mode
- Two Languages OSD(Eng/Russian)
- White Temperature Adjustment
- Surround Sound Effect(With Bass/Treble/Balance)

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WARNING

The chassis in this receiver is partially hot. Use an isolation transformer between the line cord plug and power receptacle, when servicing this chassis. To prevent electric shock, do not remove cover. No user – serviceable parts inside. Refer servicing to qualified service personnel.

SHARP CORPORATION

SPECIFICATIONS

Convergence ..... Self Convergence System
Focus ..... UNI-BI Focusing
Sweep Deflection ..... Magnetic

Intermediate Frequencies
- Picture IF Carrier 38.9MHz
- Sound IF Carrier Frequency
  - 6.5MHz 32.4MHz
  - 6.0MHz 32.9MHz
  - 4.5MHz 34.4MHz
  - 5.5MHz 33.4MHz
- Colour Sub-Carrier Frequency 34.47MHz

Power Input ..... 220 ~ 240V AC 50/60 Hz
Power Consumption 113W
Audio Power Output Rating ..... 7.5W(rms)X2

Speaker
- Size ..... 12 x 6 cm Ellipt (2pcs)
- Voice Coil Impedance ..... 6 ohms at 400 Hz

Aerial Input Impedance
- VHF/UHF ..... 75 ohms Unbalanced

Receiving System
PAL I, B/G, D/K & SECAM B/G, D/K, -K1 & NTSC M

Receiving Channel
- VHF-Channels ..... E2(48.25MHz) thru E12(224.25MHz)
  C1(49.75 MHz) thru C12(216.25 MHz)
  S1(105.25 MHz) thru S41(463.25 MHz)
- UHF-Channels ..... E21(471.25MHz) thru E69(855.25MHz)
  C13(471.25 MHz) thru C57(863.25 MHz)

Dimensions ..... Width: 618 mm
Height: 471 mm
Depth: 485 mm
Weight(approx): 25.5 kg

Cabinet material ..... All Plastics

Specifications are subject to change without prior notice.

IMPORTANT SERVICE NOTES

Maintenance and repair of this receiver should be done by qualified service personnel only.

SERVICE OF HIGH VOLTAGE SYSTEM AND PICTURE TUBE

When servicing the high voltage system, remove static charge from it by Connecting a 10K ohm Resistor in series with an insulated wire(such as a test probe) between picture tube dag and 2nd anode lead. (AC line cord should be disconnected from AC outlet.)

1. **Picture tube in this receiver employs integral implosion protection.**
2. **Replace with tube of the same type number for continued safety.**
3. **Do not lift picture tube by the neck.**
4. **Handle the picture tube only when wearing shatterproof goggles and after discharging the high voltage completely.**

X-RAY

This receiver is designed so that any X-Ray radiation is kept to an absolute Minimum. Since certain malfunctions or servicing may produce potentially hazardous radiation with prolonged exposure at close range, the following precautions should be observed:

1. **When repairing the circuit, be sure not to increase the high voltage to more than 30.0kV (at beam 0 μA) for the set.**
2. **To keep the set in a normal operation , be sure to make it function on 27.0kV ±1.0kV (at beam 1,000 μA) in the case of the set. The set has been factory - Adjusted to the above-mentioned high voltage.**
   ∴ If there is a possibility that the high voltage fluctuates as a result of the repairs, never forget to check for such high voltage after the work.
3. **Do not substitute a picture tube with unauthorized types and/or brands which may cause excess X-ray radiation.**

BEFORE RETURNING THE RECEIVER

Before returning the receiver to the user, perform the following safety Checks.

1. **Inspect all lead dress to make certain that leads are not pinched or that hardware is not lodged between the chassis and other metal parts in the receiver.**
2. **Inspect all protective devices such as non-metallic control knobs, insulating fishpapers, cabinet backs, adjustment and compartment covers or shields, isolation resistor- capacity networks, mechanical insulators etc.**

ADJUSTMENT PRECAUTIONS

This model's setting are adjusted in two different ways: through the I^2C bus control and in the conventional analog manner. The adjustments via the I^2C bus control include preset-only items and variable data.

CAUTION : MAKE SURE TV SET IN "NORMAL CONDITION" BEFORE SWITCH TO SERVICE MODE FOR ADJUSTMENT.

1. Setting the service mode by the microprocessor.

①. Short JA 304 & JA 307 , then tv set will switch to the service mode position, and the microprocessor is in input mode. (Adjustment through the I2C bus control). (Use JWS Key to set as well).

②. Press the CH DOWN / UP key on the remote controller to get ready to select the mode one by one.

③. Press the CH DOWN / UP key on the remote controller to select the modes reversibly one by one.

④. Using the VOLUME UP/ DOWN key on the remote controller, the data can be modified.

⑤. Disable the short of JA 304 & JA 307, it will switch to the normal mode (OFF) position, and the microprocessor is out of the service mode.

2. Factory Presetting.

①. Short JA 304 & JA 307, then turn ON the main power and release to switch to the service mode position. Initial values are automatically preset, only when a new EEPROM is used (Judge with the first 4 bytes).

②. The initial data are preset as listed in page 4-2 to 6-1.

③. Make sure the data need modify or not (Initial data).

Note: Once the chassis has been assembly together and ready to be POWER ON for the FIRST TIME, make sure to short JA304 & JA307 to switch to the service mode position first and then turn on the main power switch (See 2-① above).

Precaution: If haven't done this initiation, it may possibly generate excessive Beam current.

3. For reference please check with memory map.

ADJUSTMENT ITEM

*****Below is the adjustment items that we should done, PLS FOLLOW THE PROCEDURE. Otherwise some adjustment item will be no accurate.**

NO ***	ADJUSTMENT ITEM	EFFECTIVE MODEL	REVISION
1	BUS SET UP	ALL	
2	OPTION SET UP	ALL	
3	V-SIZE (50 Hz)	ALL	
4	V-SHIFT (50 Hz)	ALL	
5	H-SHIFT (50 Hz)	ALL	
6	H-VCO	ALL	
7	VIF-VCO	ALL	
8	S-TRAP fo	ALL	
9	RF-AGC	ALL	
10	PURITY ADJ	ALL	
11	CONVERGENCE ADJ	ALL	
12	FOCUS ADJ	ALL	
13	SCREEN	ALL	
14	WHITE BALANCE	ALL	
15	SUB-BRIGHTNESS	ALL	
16	SUB-CONTRAST	ALL	
17	SUB-TINT	*WITH NTSC MODEL*	
18	SUB-COLOR	ALL	
19	SECAM-OFFSET	*WITH SECAM MODEL*	
20	SIF VCO ADJ	*WITH STEREO MODEL*	
21	MAX BEAM CHECK	ALL	
22	BEAM PROTECTOR CHECK	ALL	
23	HV PROTECTOR CHECK	ALL	
24	OTHER PROTECTOR CHECK	ALL	
25	AV OUT CHECK	ALL	
26	AV IN CHECK	ALL	
27	CONTRAST CONTROL CHECK	ALL	
28	COLOR CONTROL CHECK	ALL	
29	BRIGHTNESS CONTROL CHECK	ALL	
30	TINT CONTROL CHECK	*WITH NTSC MODEL*	
31	SHARPNESS CONTROL CHECK	ALL	
32	CH DISPLAY COLOR CHECK	ALL	
33	NORMAL DISPLAY CHECK	ALL	
34	WHITE TEMP CONTROL CHECK	ALL	
35	COLOR SYSTEM CHECK	ALL	
36	SOUND SYSTEM CHECK	ALL	
37	NOISE MUTE CHECK	ALL	
38	OSD LANGUAGE QUANTITY CHECK	ALL	
39	HEAD PHONE CHECK	*WITH H/PHONE MODEL*	
40	SHOCK TEST CHECKING	ALL	
41	ROM-CORRECTION CHECKING	ALL	

USER DATA IN SERVICE MODE

* While SERVICE mode ON, EEPROM DATA will switch to the service data.
  Also, once SERVICE mode OFF, EEPROM will switch back to previous USER DATA.
* In the service mode, the user data establish as below.

	USER DATA
CONTRAST	MAX (60)
COLOUR	CENT (0)
BRIGHTNESS	CENT (0)
TINT	CENT (0)
SHARPNESS	CENT (0)
WHITE TEMP	STANDARD
S-VOLUME	MIN
SURROUND	OFF
TREBLE	CENT (0)
BASS	CENT (0)
BLUE BACK	OFF
C SYSTEM	AUTO
S SYSTEM	*1

*1: For each CH, data is same as before switch to Service Mode.

The flow of Mode lists as following.

* Direct Key-in Mode for Service Items in Service Mode

RC (HEX)	SERVICE-ITEM
80	R-CUTOFF UP (IN SERVICE MODE V00)
40	G-CUTOFF UP (IN SERVICE MODE V00)
C0	B-CUTOFF UP (IN SERVICE MODE V00)
20	R-CUTOFF DOWN (IN SERVICE MODE V00)
A0	G-CUTOFF DOWN (IN SERVICE MODE V00)
60	B-CUTOFF DOWN (IN SERVICE MODE V00)
E0	R-DRIVE UP (IN SERVICE MODE V00)
10	B-DRIVE UP (IN SERVICE MODE V00)
50	B-DRIVE DOWN (IN SERVICE MODE V00)
E4	R-DRIVE DOWN (IN SERVICE MODE V00)
E4	Y-MUTE (BESIDES OF SERVICE MODE V00)
75	RF-AGC (V01)
F5	VIF-VC0 (V02)
C2	H-VCO (V03)
8D	SUB-CONTRAST (V04)
D6	SUB-COLOR (V05)
0D	SUB-BRIGHTNESS (V06)
36	SUB-TINT (V07)
46	SUB-SHARPNESS (V08)
C6	SUB COLOR YUV (V09)
26	SUB TINT YUV (V10)
24	V-SIZE (V11), V-SIZE60 (V17)
54	V-SHIFT (V12), V-SHIFT60 (V18)
74	H-SHIFT (V13), H-SHIFT60 (V19)
66	SCM-BR (V14)
E6	SCM-BB (V15)
C4	SUB VOL (V16)
4C	S-TRAP BG (V20)
CC	S-TRAP I (V21)
2C	S-TRAP D/K (V22)
AC	S-TRAP M (V23)
EC	S-TRAP 574 (V24)
C1	AUTO ADJ FOR V01, V02, V03, V20, V21, V22, V23,V24
CA	T-SET
81	SERVICE MODE

** After short JA304 & JA307, and turn on the MAIN POWER switch, read data from EEPROM address 00H ~ 03H, and compare to the list below, if different, initialize the EEPROM.

Address	:	Data	Address	:	Data
00H	:	7AH	02H	:	71H
01H	:	73H	03H	:	79H

** There is four stage of service mode data
First stage data from V00~V24.
To go into second stage of service mode data, press **MENU** key.
Second stage data from F01~F131. **(BUS SET UP)**
To go into third stage of service mode data, press **MENU** key.
Third stage data from 001~023. **(OPTION SET UP)**
To go into fourth stage of service mode data, press **MENU** key.
Fourth stage is check mode.

FIRST STAGE

EEPROM ITEMS	OSD	DATA LENGTH	INITIAL DATA	FIX/ADJ/AUTO	REMARK
R-DRIVE	V00	0~127	63	ADJ	PLS REFER TO ADJ ITEM FOR SCREEN AND WHITE BALANCE
B-DRIVE	V00	0~127	63	ADJ	
R-CUT	V00	0~255	127	ADJ	
G-CUT	V00	0~255	127	ADJ	
B-CUT	V00	0~255	127	ADJ	
RF-AGC	V01	0~127	50	AUTO	
VIF-VCO	V02	0~63	31	AUTO	
H-VCO	V03	0~7	3	AUTO	
SUB-CONTRAST	V04	0~127	100	ADJ	
SUB-COLOR	V05	0~127	63	ADJ	
SUB-BRIGHT	V06	0~255	127	ADJ	
SUB-TINT	V07	0~127	63	ADJ	
SUB-SHARPNESS	V08	0~63	43	FIX	
SUB-COLOR -YUV	V09	0~127	90	*FIX	**BUS SET UP**
SUB-TINT-YUV	V10	0~127	63	FIX	
V-SIZE 50 Hz	V11	0~63	38	ADJ	
V-SHIFT 50 Hz	V12	0~7	3	ADJ	
H-SHIFT 50 Hz	V13	0~31	9	ADJ	
SECAM-BR	V14	0~63	37	ADJ	
SECAM-BB	V15	0~63	22	ADJ	
SUB-VOL	V16	0~60	60	FIX	
V-SIZE 60 Hz	V17	-31~0~+31	0	FIX	IF NECESSARY, ADJ
V-SHIFT 60 Hz	V18	-7~0~+7	-1	FIX	IF NECESSARY, ADJ
H-SHIFT 60 Hz	V19	-15~0~+15	+2	FIX	IF NECESSARY, ADJ
S-TRAP (BG)	V20	0~15	7	AUTO	
S-TRAP (I)	V21	0~15	7	AUTO	
S-TRAP (DK)	V22	0~15	7	AUTO	
S-TRAP (M)	V23	0~15	7	AUTO	
S-TRAP (5.74)	V24	0~15	7	AUTO	

SECOND STAGE (BUS SET UP)

EEPROM ITEMS	OSD	DATA LENGTH	INITIAL DATA	FIX/ADJ/AUTO	REMARK
STRAPQ-BG	F01	0/1	0	FIX	
STRAPQ-I	F02	0/1	0	FIX	
STRAPQ-DK	F03	0/1	0	FIX	
STRAPQ-M	F04	0/1	0	FIX	
STRAPQ-574	F05	0/1	0	FIX	
C.CLIP-LVL	F06	0/1	0	FIX	
RGB-CLIP	F07	0/1	0	FIX	
BS	F08	0/1	0	FIX	
ABCL	F09	0/1	0	FIX	
ABCL-GAIN	F10	0/1	0	FIX	
S-OUT-LVL	F11	0~127	95	FIX	
VIF-G	F12	0~7	4	FIX	
SHPG	F13	0/1	0	FIX	
SHPG-P	F14	0/1	0	FIX	
SHPG-S	F15	0/1	0	FIX	
SHPG-N4	F16	0/1	0	FIX	
SHPG-N3	F17	0/1	1	FIX	
YDL	F18	0~7	5	FIX	
YDL-P	F19	0~7	5	FIX	
YDL-S	F20	0~7	7	FIX	
YDL-N4	F21	0~7	5	FIX	
YDL-N3	F22	0~7	5	FIX	
YDL-AV	F23	0~7	6	FIX	
YDL-AV-P	F24	0~7	6	FIX	
YDL-AV-S	F25	0~7	7	FIX	
YDL-AV-N4	F26	0~7	6	FIX	
YDL-AV-N3	F27	0~7	6	FIX	
YDL-YUV	F28	0~7	6	FIX	
COL-AV (OFFSET)	F29	-31~0~+31	+10	*FIX	**BUS SET UP**
COL-P (OFFSET)	F30	-30~0~+31	0	FIX	
COL-S (OFFSET)	F31	-31~0~+31	+9	FIX	
COL-N4 (OFFSET)	F32	-31~0~+31	-8	FIX	
COL-N3 (OFFSET)	F33	-31~0~+31	-7	FIX	
COL-ADJ (OFFSET)	F34	-31~0~+31	0	*FIX	**BUS SET UP**
SHP-AV (OFFSET)	F35	-31~0~+31	+5	FIX	
SHP-YUV (OFFSET)	F36	-31~0~+31	0	FIX	
SHP-P (OFFSET)	F37	-31~0~+31	0	FIX	
SHP-S (OFFSET)	F38	-31~0~+31	-5	FIX	
SHP-N4 (OFFSET)	F39	-31~0~+31	0	FIX	
SHP-N3 (OFFSET)	F40	-31~0~+31	0	FIX	
TINT-AV (OFFSET)	F41	-63~0~+63	0	*FIX	**BUS SET UP**
TINT-ADJ (OFFSET)	F42	-63~0~+63	0	*FIX	**BUS SET UP**
TINT-YUV-ADJ (OFFSET)	F43	-63~0~+63	0	FIX	
R-R (OFFSET)	F44	-63~0~+63	+8	*FIX	**BUS SET UP**
B-R (OFFSET)	F45	-63~0~+63	-10	*FIX	**BUS SET UP**
R-B (OFFSET)	F46	-63~0~+63	-3	*FIX	**BUS SET UP**
B-B (OFFSET)	F47	-63~0~+63	+16	*FIX	**BUS SET UP**
DT	F48	0/1	0	FIX	
DT-P	F49	0/1	0	FIX	
DT-S	F50	0/1	1	FIX	
DT-N4	F51	0/1	0	FIX	
DT-N3	F52	0/1	0	FIX	
TRAP	F53	0~3	2	FIX	
TRAP-P	F54	0~3	2	FIX	
TRAP-S	F55	0~3	2	FIX	
TRAP-N4	F56	0~3	2	FIX	
TRAP-N3	F57	0~3	2	FIX	

SECOND STAGE (BUS SET UP)

EEPROM ITEMS	OSD	DATA LENGTH	INITIAL DATA	FIX/ADJ/AUTO	REMARK
1W-TV	F58	0/1	0	FIX	
1W-AV	F59	0/1	1	FIX	
V-FREE (NO SYNC)	F60	0/1	0	FIX	
AFC2 (NO SYNC)	F61	0/1	0	FIX	
GAMMA	F62	0~3	0	FIX	
BS-D/C	F63	0~15	10	FIX	
BS-GAIN	F64	0/1	0	FIX	
OM-DET	F65	0/1	0	FIX	
SL-TV	F66	0~7	2	FIX	
SL-AV	F67	0~7	4	FIX	
SL-YUV	F68	0~7	4	FIX	
VD2/VD1/AS/FBP-TV	F69	0~15	6	FIX	
VD2/VD1/AS/FBP-AV	F70	0~15	14	FIX	
VD2/VD1/AS/FBP-YUV	F71	0~15	14	FIX	
VDL	F72	0~3	0	FIX	
UDL	F73	0~3	0	FIX	
AUTO-SCM-KIL-TV	F74	0~3	1	FIX	
SCM-YDL	F75	0/1	0	FIX	
SECAM-BGP	F76	0~3	0	FIX	
N45	F77	0/1	0	FIX	
DL-REV	F78	0/1	0	FIX	
DL-OUT	F79	0/1	0	FIX	
TXT-POS-H (TELETEXT)	F80	0~63	30	*FIX	**BUS SET UP**
TXT-POS-V (TELETEXT)	F81	0~63	34	FIX	
OSD-POS	F82	0~127	9	FIX	
CP	F83	0/1	1	FIX	
SMALL-SURR (S-CTRL)	F84	0/1	0	FIX	
SUB-BASS (S-CTRL)	F85	0~7	6	*FIX	**BUS SET UP**
SUB-TREB (S-CTRL)	F86	0~7	0	*FIX	**BUS SET UP**
AGC-ADJ (S-CTRL)	F87	0~4	0	*FIX	**BUS SET UP**
AGC-SW-OFF (NICAM)	F88	0(dis)/1(ena)	1	FIX	
AGC-GAIN-ADJ (NICAM)	F89	0~31	0	FIX	
FM-LEVEL-ADJ (NICAM)	F90	-15~0~+15	0	FIX	
IGR-LEVEL-ADJ (NICAM)	F91	-15~0~+15	+1	FIX	
NICAM-BG-LVL-ADJ (NICAM)	F92	-15~0~+15	-2	FIX	
NICAM-I-LVL-ADJ (NICAM)	F93	-15~0~+15	+3	FIX	
NICAM-DK-LVL-ADJ (NICAM)	F94	-15~0~+15	-1	FIX	
NICAM-LOW-ERR-LIM (NICAM)	F95	0~255	35	FIX	
NICAM-UPP-ERR-LIM (NICAM)	F96	0~255	70	*FIX	**BUS SET UP**
IGR-GAIN-ADJ (IGR)	F97	-6~0~+7	0	FIX	
FM-ID-SPEED (NICAM)	F98	0~3	1	FIX	
NICAM-AUTO-MUTE	F99	0/1	0	FIX	
ANA-OSD	F100	0(Dig)/1(Ana)	0	*FIX	**BUS SET UP**
AUTO-SCM-KIL-AV-YUV	F101	0~3	1	FIX	
AFC1-GAIN-TV	F102	0~3	0	FIX	
AFC1-GAIN-AV	F103	0~3	3	FIX	
AFC1-GAIN-YUV	F104	0~3	3	FIX	
CON-REDUCE	F105	0(0%)~1(25%)~2(50%)	0	FIX	
TAKE-OFF-TV	F106	0/1	1	FIX	
TAKE-OFF-AV	F107	0/1	0	FIX	
TAKE-OFF-YUV	F108	0/1	0	FIX	
C-ANGLE (103 DEG/ 95 DEG)	F109	0 (103deg) / 1 (95deg)	1	FIX	
STD-BY-WO-BRIGHT	F110	0~255	255	*FIX	**BUS SET UP**
AC-FAIL-WO-BRIGHT	F111	0~255	255	*FIX	**BUS SET UP**
FORCED-SCM-KIL-TV	F112	0~3	2	FIX	
FORCED-SCM-KIL-AV-YUV	F113	0~3	2	FIX	

SECOND STAGE (BUS SET UP)

EEPROM ITEMS	OSD	DATA LENGTH	INITIAL DATA	FIX/ADJ/AUTO	REMARK
R-Y Adj	F114	0/1	0	*FIX	**BUS SET UP**
V-Demute-Delay	F115	0~255	0	FIX	
S-Demute-Delay	F116	0~255	0	FIX	
MER (DAC)	F117	0~255	70	FIX	
MEL1 (DAC)	F118	0~255	150	FIX	
MEL2 (DAC)	F119	0~255	156	FIX	
MEL3 (DAC)	F120	0~255	163	FIX	
MEL4 (DAC)	F121	0~255	165	FIX	
MEL5 (DAC)	F122	0~255	170	FIX	
MEL6 (DAC)	F123	0~255	180	FIX	
S-St-Point	F124	0~60	21	FIX	
S-Sp-Point	F125	0~60	60	FIX	
S-Step	F126	0~60	7	FIX	
Pow-Storage	F127	0(dis)/1(ena)	0	*FIX	**BUS SET UP**
S-B-BASS	F128	-30~0~+30	+15	FIX	
S-B-TREB	F129	-30~0~+30	+15	FIX	
S-BASS	F130	-30~0~+30	+30	FIX	
S-TREB	F131	-30~0~+30	+30	FIX	

THIRD STAGE (OPTION SET UP)

EEPROM ITEMS	OSD	DATA LENGTH	INITIAL DATA	REMARK
***HOTEL MODE	001	0 (0FF) / 1 (0N)	0	**OPTION SET UP**
***HTL-POS	002	0~99,—	—	**OPTION SET UP**
***HTL-VOL	003	0~60,—	—	**OPTION SET UP**
VIF	004	0 (38.0) / 1 (38.9)	1	**OPTION SET UP**
SECAM	005	0 (DISABLE) / 1 (ENABLE)	1	**OPTION SET UP**
N443(RF)	006	0 (DISABLE) / 1 (ENABLE)	1	**OPTION SET UP**
N358(RF)	007	0 (DISABLE) / 1 (ENABLE)	1	**OPTION SET UP**
FORCE-COL	008	0 (DISABLE) / 1 (ENABLE)	0	**OPTION SET UP**
S-SYS	009	1(BG ONLY)~15(ALL)	15	**OPTION SET UP**
AV	010	0 (DISABLE) / 1 (ENABLE)	1	**OPTION SET UP**
AV2	011	0 (DISABLE) / 1 (ENABLE)	1	**OPTION SET UP**
YUV	012	0 (DISABLE) / 1 (ENABLE)	1	**OPTION SET UP**
S-CTRL	013	0 (DISABLE) / 1 (ENABLE)	1	**OPTION SET UP**
NICAM	014	0 (DISABLE) / 1 (ENABLE)	0	**OPTION SET UP**
A2	015	0 (DISABLE) / 1 (ENABLE)	0	**OPTION SET UP**
TELETEXT	016	0 (DISABLE) / 1 (ENABLE)	0	**OPTION SET UP**
BILLINGUAL	017	0 (DISABLE) / 1 (ENABLE)	0	**OPTION SET UP**
LANGUAGE	018	1~255	63	**OPTION SET UP**
SEARCH-SPEED	019	1(350)~2(450)~3(550)~4(650)~5(750)	3	**OPTION SET UP**
R/C-MENU	020	0 (ENABLE) / 1 (DISABLE)	0	**OPTION SET UP**
LED-CONT	021	0 (ONE LED) / 1 (TWO LED)	0	**OPTION SET UP**
S-BOOSTER	022	0 (DISABLE) / 1 (ENABLE)	0	**OPTION SET UP**
SHARP-LOGO	023	0 (DISABLE) / 1 (ENABLE)	0	**OPTION SET UP**

*** HOTEL MODE
OPERATION OF HOTEL MODE:
WHEN CHANGE SERVICE DATA 001 TO 1, HOTEL MODE IS ON
WHEN HOTEL MODE IS ON,
1. Max volume data is determined by option setting HTL-VOL (003)
2. Channel position after POWER ON is determined by option setting HOTEL-POS (002) (if option setting HOTEL-POS is not set, processing is according to last position data).
3. User data updates of EEPROM regarding the video and audio control is not allowed.
4. Preset mode is disable.
5. CH SETTING menu is not available.

ADJ ITEM: BUS SET UP (2ND STAGE SERVICE DATA)

SERVICE ITEMS		21E-FG3RU			
V09	SUB-COLOR-YUV	90			
F29	COL-AV (OFFSET)	+10			
F34	COL-ADJ (OFFSET)	0			
F41	TINT-AV (OFFSET)	0			
F42	TINT-ADJ (OFFSET)	0			
F44	R-R (OFFSET)	+8			
F45	B-R (OFFSET)	-10			
F46	R-B (OFFSET)	-3			
F47	B-B (OFFSET)	+16			
F80	TXT-POS-H (TELETEXT)	38			
F85	SUB-BASS (S-CTRL)	3			
F86	SUB-TREB (S-CTRL)	3			
F87	AGC-ADJ (S-CTRL)	3			
F96	NICAM-UPP-ERR-LIM (NICAM)	70			
F100	0 (DIGITAL) / 1 (ANALOG) OSD	1			
F110	STD-BY-WO-BRIGHT	100			
F111	AC-FAIL-WO BRIGHT	255			
F114	R-Y Adj	1			
F127	Pow-Storage	1			

ADJ ITEM: OPTION SET UP (3RD STAGE SERVICE DATA)

SERVICE ITEMS			21E-FG3RU			
001	HTL MODE	0 (OFF) / 1 (ON)	0			
002	HTL-POS	0~99,—	–			
003	HTL-VOL	0~60,—	–			
004	VIF	0 (38.0) / 1 (38.9)	1			
005	SECAM	0 (DISABLE) / 1 (ENABLE)	1			
006	N443(RF)	0 (DISABLE) / 1 (ENABLE)	1			
007	N358(RF)	0 (DISABLE) / 1 (ENABLE)	1			
008	FORCE-COL	0 (DISABLE) / 1 (ENABLE)	0			
009	S-SYS	1 (BG ONLY) ~ 15 (ALL)	15			
010	AV	0 (DISABLE) / 1 (ENABLE)	1			
011	AV2	0 (DISABLE) / 1 (ENABLE)	1			
012	YUV	0 (DISABLE) / 1 (ENABLE)	1			
013	S-CTRL	0 (DISABLE) / 1 (ENABLE)	1			
014	NICAM	0 (DISABLE) / 1 (ENABLE)	0			
015	A2	0 (DISABLE) / 1 (ENABLE)	0			
016	TEXT	0 (DISABLE) / 1 (ENABLE)	1			
017	BIL	0 (DISABLE) / 1 (ENABLE)	0			
018	LANG	1~255	09			
019	SERCH-SP	1(350)~2(450)~3(550)~4(650)~5(750)	3			
020	R/C MENU	0 (ENABLE) / 1 (DISABLE)	0			
021	LED-CONT	0 (ONE LED) / 1 (TWO LED)	0			
022	S-BOOSTER	0 (DISABLE) / 1 (ENABLE)	0			
023	SHARP-LOGO	0 (DISABLE) / 1 (ENABLE)	0			

1.) Please set the MCL according to the specific models.
MCL1: 21E-FG3RU
MCL2:
MCL3:
MCL4:

2.) After set the MCL , please set the **INITIAL SETTING** for each models.

INITIAL1: **For China (All Channel Sound System are set to D/K)**
INITIAL2: **For Hong Kong (All Channel Sound System are set to I)**
INITIAL3: **For Singapore, Africa and Australia (All Channel Sound System are set to B/G)**
INITIAL4: **For Middle-East (All Channel Sound System are set to B/G)**
INITIAL5: **For Russia (All Channel Sound System are set to D/K)**

MCL1 (HEX AE)			MCL2 (HEX 95)			MCL3 (HEX 55)			MCL4 (HEX D5)		
CH-NO	Fv (MHz)	SOUND SYS	CH-NO	Fv (MHz)	SOUND SYS	CH-NO	Fv (MHz)	SOUND SYS	CH-NO	Fv (MHz)	SOUND SYS
0			0	590.25	B/G	0			0		
1	48.25	B/G	1	46.25	B/G	1	48.25	B/G	1	55.25	B/G
2	62.25	B/G	2	64.25	B/G	2	59.25	D/K	2	175.25	B/G
3	77.25	D/K	3	86.25	B/G	3	65.75	D/K	3	189.25	B/G
4	175.25	B/G	4	95.25	B/G	4	77.25	D/K	4	203.25	B/G
5	182.25	B/G	5	138.25	B/G	5	85.25	D/K	5	217.25	B/G
6	183.25	D/K	6	175.25	B/G	6	93.25	D/K	6	535.25	B/G
7	191.25	D/K	7	182.25	B/G	7	175.25	B/G	7		
8	196.25	B/G	8	189.25	B/G	8	184.25	D/K	8		
9	199.25	M	9	196.25	B/G	9	199.25	D/K	9		
10	210.25	B/G	10	209.25	B/G	10	210.25	B/G	10		
11	224.25	B/G	11	216.25	B/G	11	224.25	B/G	11	48.25	B/G
12	471.25	B/G	12			12	487.25	I	12	62.25	B/G
13	487.25	I	13			13	503.25	I	13	196.25	B/G
14	503.25	B/G	14			14	575.25	B/G	14	210.25	B/G
15	575.25	B/G	15			15	639.25	D/K	15	224.25	B/G
16	583.25	B/G	16			16	767.25	D/K	16	471.25	B/G
17	599.25	B/G	17			17	831.25	D/K	17	855.25	B/G
18	621.25	M	18			18	855.25	I	18		
19	639.25	D/K	19			19	97.25	M	19		
20	703.25	B/G	20			20	183.25	M	20		
21	735.25	I	21			21	193.25	M	21	223.95	B/G
22	767.25	B/G	22			22	211.25	M	22	224.55	B/G
23	815.25	B/G	23			23	217.25	M	23	223.85	B/G
24	855.25	I	24			24	477.25	M	24	224.65	B/G
25	855.25	B/G	25			25	693.25	M	25	223.75	B/G
26	55.25	M	26			26	62.25	B/G	26	224.75	B/G
27	83.25	M	27			27	503.25	B/G	27		
28	183.25	M	28	527.25	B/G	28	527.25	B/G	28		
29	193.25	M	29			29	599.25	B/G	29		
30	217.25	M	30			30	621.25	M	30		
31	471.25	M	31			31	815.25	B/G	31	91.25	M
32	477.25	M	32			32	112.25	B/G	32	103.25	M
33	693.25	M	33			33	168.25	B/G	33	171.25	M
34	885.25	M	34			34	91.25	M	34	183.25	M
35	112.25	B/G	35			35	294.25	B/G	35	193.25	M
36	168.25	B/G	36			36	463.25	B/G	36	205.25	M
37			37	590.25	B/G	37	174.95	B/G	37	217.25	M
38	294.25	B/G	38			38	174.55	B/G	38	621.25	M
39	463.25	B/G	39			39			39		
40			40			40			40		
41	647.25	B/G	41	48.25	B/G	41			41		
42	663.25	B/G	42	62.25	B/G	42			42		
43	679.25	B/G	43	77.25	D/K	43			43		
44	174.95	B/G	44	175.25	B/G	44			44		
45	175.55	B/G	45	183.25	D/K	45			45		
46			46	191.25	D/K	46			46		
47			47	210.25	B/G	47			47		
48			48	224.25	B/G	48			48		
49			49	487.25	I	49			49		
50			50	503.25	B/G	50			50		
51			51	575.25	B/G	51			51		
52			52	599.25	B/G	52			52		
53			53	621.25	M	53			53		
54			54	639.25	D/K	54			54		
55			55	735.25	I	55			55		
56			56	767.25	B/G	56			56		
57			57	815.25	B/G	57			57		
58			58	855.25	I	58			58		
59			59	91.25	M	59			59		
60			60	183.25	M	60			60		
61			61	193.25	M	61			61		
62			62	217.25	M	62			62		
63			63	471.25	M	63			63		
64			64	693.25	M	64			64		
65			65	112.25	B/G	65			65		
66			66	168.25	B/G	66			66		
67			67	294.25	B/G	67			67		
68			68	463.25	B/G	68			68		
69			69	174.25	B/G	69			69		
70			70	175.25	B/G	70			70		

*NOTE: PLL DATA OF ABOVE FREQ SHOULD TAKE THE ACCOUNT OF PIF SETTING IN SERVICE OPTION 004 (VIF) BEFORE STORING INTO EEPROM.

SHIPPING SETTING & CHECKING

(1)The following default data has been factory-set for the E2PROM follow by INITIAL DATA selected.

ITEMS	DATA SETTING
LAST POWER	ON
LAST TV/AV MODE	TV MODE
LAST POSITION	CH 1
FLASHBACK CHANNEL	CH 1
FAVOURITE CH A	CH 10
FAVOURITE CH B	CH 20
FAVOURITE CH C	CH 30
FAVOURITE CH D	CH 40
1/2 DIGIT ENTRY	2 DIGIT ENTRY
VOLUME	0 (Min)
BALANCE	0 (CENTER)
BLUE BACK	OFF
*TEXT	1
OFF TIMER	—:—
ON TIMER	—:—
ON TIMER POSITION	—
ON TIMER VOLUME	—
REMINDER	—:—
AFT	ALL CH ON
COL SYSTEM	ALL CH AUTO
SKIP	ALL CH OFF
NICAM ON/OFF	ALL CH ON
NICAM STEREO MODE	ALL CH STEREO
NICAM BILINGUAL MODE	ALL CH M1
NICAM MONO MODE	ALL CH MONO
IGR ON/OFF	ALL CH ON
IGR STEREO MODE	ALL CH STEREO
IGR BIL MODE	ALL CH MAIN
CONTRAST	60
COLOR	0
BRIGHTNESS	0
TINT	0
SHARPNESS	0
WHITE TEMP	0
SURROUND	OFF
TREBLE	0
BASS	0

*For model's include teletext function only.

INITIAL	LANGUAGE	SOUND SYSTEM
1 (HEX 14)	CHINESE	D/K
2 (HEX 15)	CHINESE	I
3 (HEX 17)	ENGLISH	B/G
4 (HEX 97)	ARABIC	B/G
5 (HEX 57)	RUSSIAN	D/K
6 (HEX D7)	MALAY	B/G
7 (HEX 37)	FRENCH	D/K

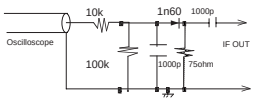
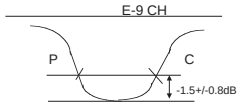
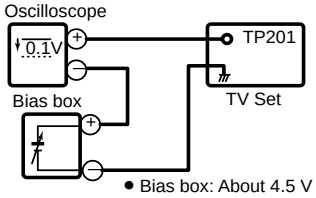
FACTORY SETTING BY MODEL
(Reference: Geomagnetism Adjustment)

MODEL	MAGNETIC FIELD(V, H) nT		BACKGROUND	LANG.	S-SYS	LANG QTY
CHINA	30,000	20,000	12300K	CHINESE	D/K	5
HONG KONG	20,000	40,000	12300K	CHINESE	I	5
SINGAPORE	-10,000	40,000	12300K	ENGLISH	B/G	5
AFRICA	-10,000	40,000	12300K	ENGLISH	B/G	5
MID-EAST	30,000	20,000	18000K	ARABIC	B/G	5
RUSSIA	45,000	20,000	7500K	RUSSIAN	D/K	2
AUSTRALIA	-50,000	20,000	12300K	ENGLISH	B/G	5

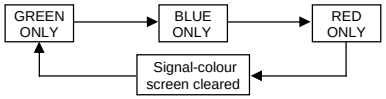
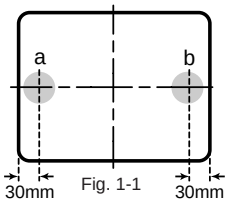
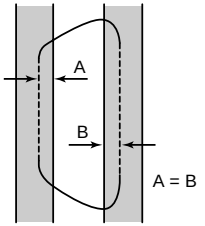
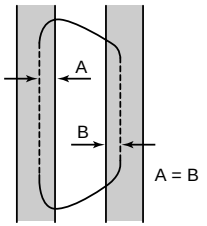
*NOTE FOR OSD TYPE

5 : ENGLISH/CHINESE/FRENCH/ARABIC/MALAY
2 : ENGLISH/RUSSIAN

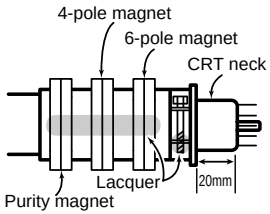
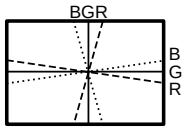
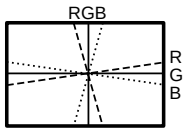
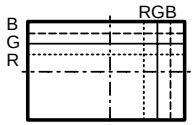
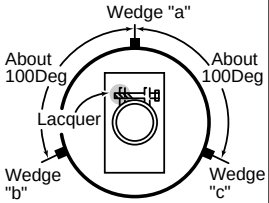
PIF ADJUSTMENT

No.	Adjustment point	Adjustment condition/procedure	Waveform or others
1	**Tuner IFT (PRESET)**	1. Get the tuner ready to receive the CH. E - 9 signal,but with no signal input. Adjust the PLL data. 2. Connect the sweep generator's output cable to the tuner antenna. (RF SWEEP) 3. Adjust the sweep generator's to 80dBµV. 4. Connect the response lead (use LOW IMPEDANCE probe with wave detector ; see Fig.1) to the tuner's IF output terminal. (This terminal must have the probe alone connected). 5. Set the RF AGC to 0 - 6 V with no saturation with the waveform. 6. Adjust the tuner IF coil to obtain the waveform as shown in Fig. 2. **Note: Be sure to keep the tuner cover in position during this adjustment.**	 Fig.1  Fig.2
2	**RF-AGC TAKE OVER POINT ADJUSTMENT (I^2C BUS CONTROL)** **(AUTO & MANUAL ADJ)**	1. Receive "PAL COLOUR BAR" signal. ● Signal Strength: 56 ± 1 dBµV (75 ohm open) 2. Connect the oscilloscope to TP201 (Tuner's AGC Terminal) as shown in Fig. 3-1.  ● Bias box: About 4.5 V Fig. 3-1 3. Call "**V01**" mode in service mode. Adjust the "**V01**" bus data to obtain the Tuner output pin drop **0.1~1.0V** below maximum voltage. 4. Change the antenna input signal to 63~67dBµV, and make sure there is no noise. 5. Turn up the input signal to 90~95 dBµV to be sure that there is no cross modulation beat.	*** for Auto ADJ** 1) Receive "PAL COLOUR BAR" signal. signal strength: 56 ± 1dBµV(75 ohm open) 1) Go to service mode. 2) Go to service data V01, press R/C to operate auto key (Hex C1) and confirm the 'OK' display on the screen. 3) If appear NG, increase data some step and pls repeat step 2 again. 4) proceed step 4 & 5 in manual mode.

PURITY ADJUSTMENT

No.	Adjustment point	Adjustment condition/procedure	Waveform or others
1	**PURITY ADJ.**	1. Receive the GREEN-ONLY signal. Adjust the beam current to ~700 µA. 2. Degauss the CRT enough with the degausing coil. Note: Follow the Job Instruction Sheet to adjust the magnetic field. Vertical Bv: +0.030 mT (0.30 gauss) Horizontal Bh: +0.020 mT (0.20 gauss) (Reference: page 7-2) 3. Maintain the purity magnet at the zero magnetic field and keep the static convergence roughly adjusted. 4. Observe the points a, b as shown in Fig. 1-1 through the microscope. Adjust the landings to the A rank requirement. 5. Orient the raster rotation to 0 eastward. 6. Tighten up the deflection coil screws. ● Tightening torque: 108 ± 20 N (11 ± 2 kgf) 7. Make sure the CRT corners landing meet the A rank requirements. If not, stick the magnet sheet to correct it. Note: This adjustment must be done after warming up the unit for 30 minutes or longer with a beam current over 700 µA. Note: Set the service mode by JA304 & JA307 (short) then press factory process R/C RGB key to change to RGB mono colour mode. * For the following colours press R/C RGB(Hex 7E) key to change. 	 Fig. 1-1  Fig. 1-2 Rank "A" (on the right of the CRT)  Fig. 1-3 Rank "A" (on the left of the CRT) * Press R/C RGB key for 1 second in NORMAL MODE, the colour will change to RGB mono colour mode.

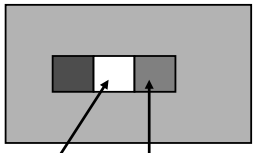
CONVERGENCE ADJUSTMENT

No.	Adjustment point	Adjustment condition/procedure	Waveform or others
1	**CONVERGENC ADJ. (To be done after the purity adjustment.)**	1. Receive the "Crosshatch Pattern" signal. 2. Using the remote controller, call NORMAL mode. **Static convergence** 1. Turn the 4-pole magnet to a proper opening angle in order to superpose the blue and red colours. 2. Turn the 6-pole magnet to a proper opening angle in order to superpose the green colour over the blue and red colours. **Dynamic convergence** 1. Adjust the convergence on the fringes of the screen in the following steps. a) Fig. a: Drive the wedge at point "a" and swing the deflection coil upward. b) Fig. b: Drive the wedge at point "b" and "c" and swing the deflection coil downward. c) Fig. c: Drive the "c" wedge deeper and swing the deflection coil rightward. d) Fig. d: Drive the "b" wedge deeper and swing the deflection coil leftward. 2. Fix all the wedges on the CRT and apply glass tape over them. 3. Apply lacquer to the deflection yoke lock screw, magnet unit (purity, 4-pole, 6-pole magnets) and magnet unit lock screw. Finally received the Red-only and Blue-only signals to make sure there is no other colours on the screen.  	 Fig. a  Fig. b  Fig. c Fig. d 

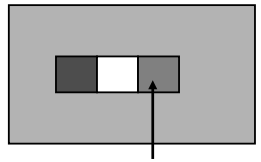
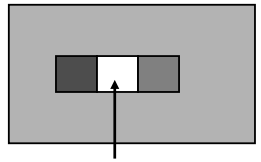
H-VCO, VIF-VCO & S-TRAP fo ADJUSTMENT

No.	Adjustment point	Adjustment condition/procedure	Waveform or others
1	**H-VCO ADJ (I²C BUS CONTROL) (AUTO & MANUAL ADJ)**	**(MANUAL ADJ)** 1) In No signal (RASTER) condition. 2) Go to service mode, choose service data **V03**. 3) Connect oscilloscope to **IC801 pin11**, adj **V03** until freq become **15.625 ± .15 KHz** **(Auto Adj)** 1) In No signal (RASTER) condition. 2) Go to service mode. 3) Choose service data **V03**, by pressing R/C **Auto (Hex C1)** key, OSD will appear "OK" at screen. 4) If appear "NG" pls repeat step 3.	
2	**VIF-VCO ADJ (I²C BUS CONTROL) (AUTO & MANUAL ADJ)**	**(Manual ADJ)** 1) In No signal (RASTER) condition. 2) Go to service mode, choose service data **V02**. 3) Connect oscilloscope to **IC801 pin2**, adj **V02** until voltage become **2.5 ± 1 V**. **(Auto Adj)** 1) In No signal (RASTER) condition. 2) Go to service mode, choose service data **V02.** 3) Press the R/C **Auto (Hex C1)** key, OSD will appear "OK" at screen. 4) If appear "NG" pls repeat step 3.	
3	**S-TRAP fo ADJ (I²C BUS CONTROL) (AUTO & MANUAL ADJ)**	**(Manual ADJ)** 1) In No signal (RASTER) condition. 2) Go to service mode, choose service data **V21**. 3) Connect oscilloscope to **TP 801,** adj **V21** until voltage become **Min** (below 5 V). 4) After that pls adj service data **V20 & V24 same as "V21", V22 to "V21-1", V23 to "V21+2"**. **(Auto Adj)** 1) In No signal (RASTER) condition. 2) Go to service mode, choose service data **V21**. 3) Press the R/C **Auto (Hex C1)** key, OSD will appear "OK" at screen. 4) If appear "NG" pls repeat step 3.	

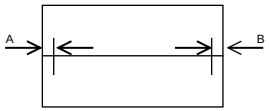
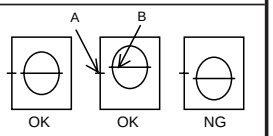
SCREEN, WHITE BALANCE, SUB-BRIGHTNESS & SUB-CONTRAST (1) ADJUSTMENT

No.	Adjustment point	Adjustment condition/procedure	Waveform or others
1	**SCREEN ADJUSTMENT (I^2C BUS CONTROL)**	1) In window pattern signal condition. 2) Go to service mode, select V00, then. 3) pressing R/C key **"7" (Hex E0)** to **increase** & **"flash back" (Hex E4)** to **decrease R-Drive** data, OSD will appear **"R-D"**. 4) pressing R/C key **"8" (Hex 10)** to **increase** & **"0" (Hex 50)** to **decrease B-Drive** data, OSD will appear **"B-D"**. 5) pressing R/C key **"1" (Hex 80)** to **increase** & **"4" (Hex 20)** to **decrease R-Cut** data, OSD will appear **"R-C"**. 6) pressing R/C key **"2" (Hex 40)** to **increase** & **"5" (Hex A0)** to **decrease G-Cut** data, OSD will appear **"G-C"**. 7) pressing R/C key **"3" (Hex C0)** to **increase** & **"6" (Hex 60)** to **decrease B-Cut** data, OSD will appear **"B-C"**. 8) By pressing R/C key **S-Mute(Hex E8)**, **R-D** auto switch to **63**, **B-D** auto switch to **63**, **R-C** auto switch to **127**, **G-C** auto switch to **127**, **B-C** auto switch to **127**, **Sub-Brightness V06** auto switch to **127**. Y-mute & Vertical off, screen will be in **vertical cut-off** condition. 9) Adjust the Screen so that cut-off line appear in low bright, then judge that whether the cut-off line appear in Red or Green or Blue colour, in this condition between R-C & G-C & B-C, **fix** the data of the **color appear in cut-off line** and **adj the other two cut-off data** so that cut-off line colour become **white**. 10)Turn the screen VR of FBT so that cut-off line just **disappear** and use R/C by pressing key **S-Mute (Hex E8)** to **disable** the Y-mute & V-cut so that picture appear in normal mode.	
2	**WHITE BALANCE ADJ (to be done after screen adj) (I^2C BUS CONTROL)**	**1) WHITE (HIGH BEAM)** (In Window Pattern Signal) First use Minolta Colour Analyzer CA100, let the gun point at **Black** position (as drawing attach), Adj **V06** until **BRIGHTNESS Y** become **5 cd/m2**, then let the gun point at **White** position (as drawing attach), Adj **V04** until **BRIGHTNESS Y** become **200 cd/m2**, Adj the **R-D** & **B-D** until the axis of colour temperature become. **** X=300, Y=310 7500 K** **2) BLACK (LOW BEAM)** (In Window Pattern Signal) Let the gun point at **Black** position, if the colour temperature data shift away from the data adjusted in **step 1**, adjust **R-C,G-C & B-C but between them, first color appear in Screen adj item 1)-9 is fixed**, adj the other two so that to obtain the similar axis as above. ****Repeat step 1 & 2 to get a regulated position.**	 WINDOW PATTERN SIGNAL

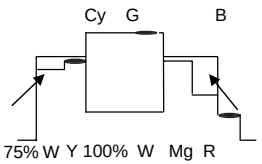
SCREEN, WHITE BALANCE, SUB-BRIGHTNESS & SUB-CONTRAST (2) ADJUSTMENT

No.	Adjustment point	Adjustment condition/procedure	Waveform or others
3	**SUB-BRIGHTNESS (to be done after screen, white balance adj) (I^2C BUS CONTROL)**	1) In window pattern signal condition. 2) Using Minolta Colour Analyzer CA-100, let the gun point at **Black** position (as attach drawing), adjust **V06** Bus data until **BRIGHTNESS Y = 3 ± 0.5 cd/m2**.	 WINDOW PATTERN SIGNAL
4	**SUB-CONTRAST (to be done after screen, white balance adj, sub-bright-ness adj) (I^2C BUS CONTROL)**	1) In Window Pattern Signal condition. 2) Using Minolta Colour Analyzer CA-100, let the gun point at White position (as attach drawing), adjust **V04** Bus data until **BRIGHTNESS Y equal to below data.** **BRIGHTNESS Y = 200 ± 10 cd/m2**	 WINDOW PATTERN SIGNAL
5	**Beam Current Check**	1) Receive the "Monoscope Pattern" signal. 2) Press R/C to set Picture NORMAL condition. 3) Connect the DC miliammeter between TP 603 (+) & TP 602 (-). (Full Scale: 3mA Range) 4) Beam current must be within **1000 ± 100μA**.	

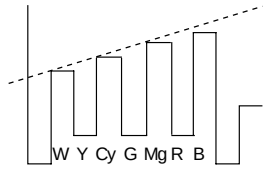
HORIZONTAL, VERTICAL, DEFLECTION LOOP and FOCUS ADJUSTMENT

No.	Adjustment point	Adjustment condition/procedure	Waveform or others
1	**H-SHIFT (I^2C BUS CONTROL) (to be done after purity adj)**	1) Receive Monoscope Pattern Signal (PAL 50 Hz) 2) Choose the service data **V13**. 3) Adjust the **V13** bus data to have a balance position to spec of **A=B** (as attach drawing) 4) If cannot make it to **A=B**, adjust from the best point so that **B** slightly smaller than **A**.	
2	**V-SHIFT (I^2C BUS CONTROL) (to be done after purity adj)**	1) Receive Monoscope Pattern Signal (PAL 50 Hz) 2) Choose the service data **V12**. 3) Adjust **V12** bus data to have a most acceptable vertical position, the monoscope pattern should be **Balance** in vertical position. **Note: A mark (Tube middle mark) must same or nearest lower position to B line (monoscope middle line) refer to attach drawing.**	
3	**V-SIZE (I^2C BUS CONTROL) (to be done after purity, V-shift adj)**	1) Receive Monoscope Pattern Signal (PAL 50 Hz) 2) Choose the service data **V11**. 3) Adjust **V11** bus data until the overscan become **10 ± 1.5 %** **Caution1: Pls aging TV more than 10 minutes before adjustment.** **Caution2: for H-shift & V-shift & V-size adj, after adj pls switch to Monoscope pattern signal (NTSC 60 Hz) to confirm all position is same.**	
4	**SUB-SHARPNESS**	1) Confirm Service data **V08** is **43**.	
5	**Focus**	1) Receive the "Monoscope Pattern" signal. 2) Press R/C to set Picture NORMAL condition. 3) Adjust the focus control to get the best focusing.	

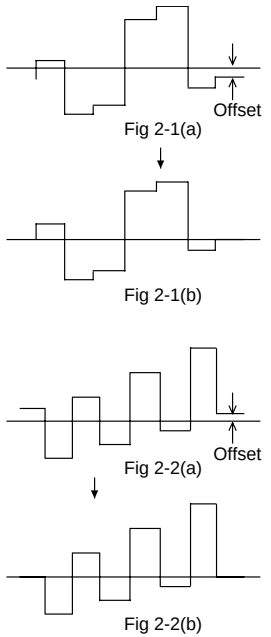
PAL CHROMA ADJUSTMENT

No.	Adjustment point	Adjustment condition/procedure	Waveform or others
1	**SUB COLOUR (I^2C BUS CONTROL) (to be done after sub-picture, sub-tint adj)**	1) Receive the “PAL Colour Bar” signal. 2) Press R/C to set Picture Normal condition. 3) Connect the oscilloscope to R-Amp Transistor Base**(TP 851)**. Range : 100 mV/Div (AC) (Using 10:1 Probe) Sweep Time : 10 µ sec/Div 4) Using the R/C call **V05** in SERVICE mode. Adjust **V05** bus data, so that the 75% White & Red portions of PAL Colour Bar be at the **same level** shown as Fig 1-1. 5) Clear the SERVICE mode.	 Fig. 1-1

NTSC CHROMA ADJUSTMENT

No.	Adjustment point	Adjustment condition/procedure	Waveform or others
1	**SUB-TINT (I^2C BUS CONTROL)**	1) Receive the "NTSC3.58 Colour Bar" signal thru AV in. 2) Connect the oscilloscope to B-Amp Transistor Base **(TP853)**. ● Range : 100mV/Div (AC)(Use Probe 10:1) ● Sweep time : 10 µsec/Div 3) In Service mode, go to **V07**, press **R/C Y-mute(Hex E4)**. 4) Call the "**V07**" data in service mode. Adjust the "**V07**" bus data to obtain the waveform shown as Fig. 1-1. 5) Disable **Y-Mute** by pressing **key(Hex E4)**, then Clear the SERVICE mode.	 Fig. 1-1

SECAM CHROMA ADJUSTMENT

No.	Adjustment point	Adjustment condition/procedure	Waveform or others
1	**SECAM BLACK LEVEL R-Y/B-Y (I^2C BUS CONTROL)**	1) Receive “SECAM COLOUR BAR” signal. 2) In the service mode, select service data **V14**. 3) Connect oscilloscope to **TP 801**. ● Range : 200mV/Div (AC)(Use 10:1 probe) ● Sweep time : 20 µsec/Div 4) Adjust the **V14** so that the offset of R-Y to minimum, shown in **Fig 2-1(b)**, it means adjust the offset of between No signal line and Signal line to minimum. 5) In the service mode, select service data **V15**. 6) Connect oscilloscope to **TP 801**. ● Range : 200mV/Div (AC)(Use 10:1 probe) ● Sweep time : 20 µsec/Div 7) Adjust the **V15** so that the offset of B-Y to minimum, shown in **Fig 2-2(b)**, it means adjust the offset of between No signal line and Signal line to minimum.	 Fig 2-1(a) Fig 2-1(b) Fig 2-2(a) Fig 2-2(b)

SIF (NICAM/IGR) ADJUSTMENT

No.	Adjustment point	Adjusting condition/procedure	Waveform or others
1	**VCO COIL T2300**	1. Receive “PAL COLOUR BAR” signal. 2. Connect DC Voltmater to Main Board socket **SC304 pin 1**. 3. Check and turn T2300 counter-clockwise (Left) so that DC voltmeter appear 0V, then turn it clockwise (Right) so that DC voltmeter appear 5V. After that , turn **T2300** counter-clockwise (Left) until DC voltmeter appear **2.5 ± 0.1 Vdc.** ** UNIT BOARD ADJUSTMENT Vcc 5V ± 0.1Vdc IF Input Freq 38.9MHz ± 10KHz Adjust T2300 until TP2300 (NICAM BOARD TEST POINT) become 2.5 ± 10.1Vdc. Check after assembly NICAM BOARD Test point: Main Board socket SC304 pin 1. Preset selected receptiion frequency (AFT OFF) Check Voltage 2.5 ± 0.1Vdc. **Precaution: The Vcc, fo and other factors are considered in the unit board of the 1.0V tolerance which differ from the adjustment accuracy.**	

PROTECTOR OPERATION CHECKING

No.	Adjustment point	Adjustment condition/procedure	Waveform or others
1	**BEAM PROTECTOR**	1) Receive "Monoscope Pattern" signal. 2) Set CONTRAST MAX. 3) Set BRIGHT MAX. 4) During the Collector & Emitter of **Q853/4/5** short, make sure the protector ON and switch to standby mode.	* Select one of Q853/4/5 to do each short.
2	**H, V PROTECTOR**	1) Receive "Monoscope Pattern" signal. 2) Connect output of Bias Box to **D602** cathode (C602 positive). 3) Set voltage of Bias Box to **18V** and make sure the protector is not work. 4) Set voltage of Bias Box to **24.5V**, and make sure the protector is work.	
3	**OTHER PROTECTOR**	1) Once finish rectified Electrolytic Capacitor short testing in +B line, check all possible damaged components on +B line. (Use random selected set for inspection)	

A/V INPUT, OUTPUT & COMPONENT IN CHECKING

No.	Adjustment point	Adjustment condition/procedure	Waveform or others
1	**VIDEO AND AUDIO OUTPUT CHECK**	1) Receive the "PAL Colour Bar" signal (100% White Color Bar, Sound 400 Hz 100% Mod.) 2) Terminate the Video output with a 75 ohm impedance. Make sure the output is as specified **(1.0 Vp-p ±3 dB)**. 3) Terminate the Audio output with a 10K ohm impedance. Make sure the output is as specified **(1.2 Vp-p ±3 dB)**.	
2	**VIDEO AND AUDIO INPUT CHECK**	1) Using the TV/VIDEO key on the remote controller, make sure that the modes change in order of TV, AV1, **AV2** & TV again and the video & audio output are according to the input terminal for each mode.	
3	**COMPONENT IN CHECK**	1) Connect YUV & Audio signal to Component In terminal and Audio terminal. 2) Using the TV/VIDEO key on the remote controller, press it until the modes change to COMPONENT, confirm output is appear.	

FUNCTION OPERATION CHECKING (VIDEO AND AUDIO)

No.	Adjustment point	Adjustment condition/procedure	Waveform or others
1	**CONTRAST key**	1) Receive "Monoscope Pattern" signal. 2) Set MENU, then go into PICTURE mode to select CONTRAST. 3) Press Volume Up/Down key to check whether the CONTRAST effect is OK or not.	
2	**COLOUR key**	1) Receive "Colour Bar" signal. 2) Set MENU, then go into PICTURE mode to select COLOUR. 3) Press Volume Up/Down key to check whether the COLOUR effect is OK or not.	
3	**BRIGHTNESS key**	1) Receive "Monoscope Pattern" signal. 2) Set MENU, then go into PICTURE mode to select BRIGHTNESS. 3) Press Volume Up/Down key to check whether the BRIGHTNESS effect is OK or not.	
4	**TINT key**	1) Receive the "NTSC Colour Bar" signal thru AV in. 2) Set MENU, then go into PICTURE mode to select TINT. 3) Press Volume Up/Down key to check TINT, UP for GREEN direction and DOWN for PURPLE direction whether is OK or not.	
5	**SHARPNESS Key**	1) Receive "Monoscope Pattern" signal. 2) Set MENU, then go into PICTURE mode to select SHARPNESS. 3) Press Volume Up/Down key to check whether the SHARPNESS effect is OK or not.	
6	**CH DISPLAY COLOUR**	1) All Ch (1~99) will have an OSD display of the channel number in green colour under AFT ON condition.	
7	**NORMAL Key**	1) Once in PICTURE Mode, and the NORMAL key is pressed, all the settings will be present to normal setting. (Normal setting value for every mode). ● CONTRAST : MAX ● COLOUR : CENTER ● BRIGHTNESS : CENTER ● TINT : CENTER ● SHARPNESS : CENTER	Notes:If nothing is display mean contrast, colour, bright, tint, sharpness are all in normal setting.
8	**WHITE TEMP**	1) Receive "Monoscope Pattern" signal. 2) Set MENU, then go into PICTURE mode to select WHITE TEMP. 3) Press Volume Up/Down key to check WHITE TEMP function. The back ground will change to (shift right) bludish and (shift left) reddish.	

FUNCTION OPERATION CHECKING (VIDEO AND AUDIO) CONTINUED

No.	Adjustment point	Adjustment condition/procedure	Waveform or others
9	**COLOUR SYSTEM**	1) Receive the "PAL COLOUR BAR" signal, press MENU, choose CH-SETTING to select COLOUR modes except PAL, check the COLOUR is not working properly. Then, select the "PAL" mode. Check again its colour so that it is working properly. 2) Receive "SECAM COLOUR BAR" signal, press MENU, choose CH-SETTING to select COLOUR modes except SECAM, check the COLOUR is not working properly. Then, select the "SECAM" mode. Check again its colour so that it is working properly. 3) Receive "NTSC 4.43" signal, press MENU, choose CH-SETTING to select COLOUR modes except N443, check the COLOUR is not working properly. Then, select the N443 mode. Check again its colour so that it is working properly. 4) Receive "NTSC 3.58 COLOUR BAR" signal thru AV, press MENU, choose CH-SETTING to select COLOUR modes except N358, check the COLOUR is not working properly. Then, select the N358 mode. Check again its colour so that it is working properly.	
10	**SOUND SYSTEM**	1) Receive "PAL-D/K" signal, press MENU, choose CH-SETTING then go into SOUND mode to select B/G, I, M. Check the sound output is not working properly.Select D/K and check the sound output to make sure it is working properly. 2) Receive "PAL-I" signal, press MENU, choose CH-SETTING then go into SOUND mode to select B/G, D/K, M. Check the sound output is not working properly. Select I and check the sound output to make sure it is working properly. 3) Receive "PAL-B/G" signal, press MENU, choose CH-SETTING then go into SOUND mode to select I, D/K, M. Check the sound output is not working properly. Select B/G and check the sound output to make sure it is working properly. 4) Receive "NTSC-M" signal, press MENU, choose CH-SETTING then go into SOUND mode to select B/G, I, D/K. Check the sound output is not working properly. Select M and check the sound output to make sure it is working properly.	
11	**NOISE MUTE CHECKING**	1) Receive "PAL COLOUR BAR" signal. 2) Turn up the volume control to maximum, make sure the sound is heard from the speakers. Then put the unit in no signal state. 3) Check the sound mute is effective. 4) Finally turn sound level of CTV to minimum.	
12	**OSD LANGUAGE QUANTITY CHECK**	Check OSD LANGUAGE quantity and type for respect model. (2 LANGUAGE) QUANTITY: 2 — ENGLISH: O — RUSSIAN: O	

HEADPHONE JACK CHECKING

No.	Adjustment point	Adjustment condition/procedure	Waveform or others
1	**HEADPHONE OUTPUT CHECKING**	1) Receive PAL COLOUR BAR with SOUND 400Hz, 100% MODULATION (±50kHz Dev). 2) Maximum volume, and check the headphone output with 400Hz sound and no sound out from speaker.	

SHOCK TEST CHECKING

No.	Adjustment point	Adjustment condition/procedure	Waveform or others
1	**SHOCK TEST**	1) Hit at the top of TV set for two time. 2) Check TV set not damage and TV operation operate correctly.	

ROM-CORRECTION CHECKING

No.	Adjustment point	Adjustment condition/procedure	Waveform or others
1	**ROM-CORRECTION CHECK**	1) Go to the service mode, press "MENU" button until the attach service items appears. 2) Check the ROM-correction status by monitoring the screen, follow the model's setting Model's: 21E-FG3RU; Micon version: A319WJN4 (ver 2.11); CHK1: ACT; CHK2: NO CHK1: For YUV correction CHK2: For mute NICAM in AV mode	INFO SLV1 0 0 SLV2 0 0 SLV3 0 0 SLV4 0 0 MICON:N4 CHK1:ACT SOFT:2.11 CHK2:NO

MEMORY MAP

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	REMARK
00	EEPROM INITIALIZATION JUDGEMENT BYTE-0								7A	00-FF							
01	EEPROM INITIALIZATION JUDGEMENT BYTE-1								73	00-FF							
02	EEPROM INITIALIZATION JUDGEMENT BYTE-2								71	00-FF							
03	EEPROM INITIALIZATION JUDGEMENT BYTE-3								79	00-FF							
04	ROM VERSION								00	00-FF							
05	SOFTWARE VERSION (HIGH BYTE)								**02**	00-FF							(2) Change default value 01 to 02.
06	SOFTWARE VERSION (LOW BYTE)								**0B**	00-FF							(1) Change default value 14 to 1B. (2) Change default value 1B to 0B.
07																	
08	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 0
09	TUNING FREQUENCY (HIGH BYTE)									00-FF							
0A	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 1
0B	TUNING FREQUENCY (HIGH BYTE)									00-FF							
0C	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 2
0D	TUNING FREQUENCY (HIGH BYTE)									00-FF							
0E	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 3
0F	TUNING FREQUENCY (HIGH BYTE)									00-FF							
10	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 4
11	TUNING FREQUENCY (HIGH BYTE)									00-FF							
12	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 5
13	TUNING FREQUENCY (HIGH BYTE)									00-FF							
14	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 6
15	TUNING FREQUENCY (HIGH BYTE)									00-FF							
16	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 7
17	TUNING FREQUENCY (HIGH BYTE)									00-FF							
18	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 8
19	TUNING FREQUENCY (HIGH BYTE)									00-FF							
1A	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 9
1B	TUNING FREQUENCY (HIGH BYTE)									00-FF							
1C	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 10
1D	TUNING FREQUENCY (HIGH BYTE)									00-FF							
1E	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 11
1F	TUNING FREQUENCY (HIGH BYTE)									00-FF							
20	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 12
21	TUNING FREQUENCY (HIGH BYTE)									00-FF							
22	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 13
23	TUNING FREQUENCY (HIGH BYTE)									00-FF							
24	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 14
25	TUNING FREQUENCY (HIGH BYTE)									00-FF							
26	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 15
27	TUNING FREQUENCY (HIGH BYTE)									00-FF							
28	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 16
29	TUNING FREQUENCY (HIGH BYTE)									00-FF							
2A	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 17
2B	TUNING FREQUENCY (HIGH BYTE)									00-FF							
2C	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 18
2D	TUNING FREQUENCY (HIGH BYTE)									00-FF							
2E	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 19
2F	TUNING FREQUENCY (HIGH BYTE)									00-FF							
30	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 20
31	TUNING FREQUENCY (HIGH BYTE)									00-FF							
32	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 21
33	TUNING FREQUENCY (HIGH BYTE)									00-FF							
34	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 22
35	TUNING FREQUENCY (HIGH BYTE)									00-FF							
36	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 23
37	TUNING FREQUENCY (HIGH BYTE)									00-FF							
38	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 24
39	TUNING FREQUENCY (HIGH BYTE)									00-FF							
3A	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 25
3B	TUNING FREQUENCY (HIGH BYTE)									00-FF							
3C	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 26
3D	TUNING FREQUENCY (HIGH BYTE)									00-FF							
3E	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 27
3F	TUNING FREQUENCY (HIGH BYTE)									00-FF							

MODEL							MODEL						
A3HE1EFG3J													
LETTER NO.							LETTER NO.						

MEMORY MAP
(Continued)

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	REMARK
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	
40	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 28
41	TUNING FREQUENCY (HIGH BYTE)									00-FF							
42	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 29
43	TUNING FREQUENCY (HIGH BYTE)									00-FF							
44	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 30
45	TUNING FREQUENCY (HIGH BYTE)									00-FF							
46	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 31
47	TUNING FREQUENCY (HIGH BYTE)									00-FF							
48	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 32
49	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4A	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 33
4B	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4C	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 34
4D	TUNING FREQUENCY (HIGH BYTE)									00-FF							
4E	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 35
4F	TUNING FREQUENCY (HIGH BYTE)									00-FF							
50	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 36
51	TUNING FREQUENCY (HIGH BYTE)									00-FF							
52	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 37
53	TUNING FREQUENCY (HIGH BYTE)									00-FF							
54	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 38
55	TUNING FREQUENCY (HIGH BYTE)									00-FF							
56	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 39
57	TUNING FREQUENCY (HIGH BYTE)									00-FF							
58	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 40
59	TUNING FREQUENCY (HIGH BYTE)									00-FF							
5A	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 41
5B	TUNING FREQUENCY (HIGH BYTE)									00-FF							
5C	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 42
5D	TUNING FREQUENCY (HIGH BYTE)									00-FF							
5E	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 43
5F	TUNING FREQUENCY (HIGH BYTE)									00-FF							
60	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 44
61	TUNING FREQUENCY (HIGH BYTE)									00-FF							
62	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 45
63	TUNING FREQUENCY (HIGH BYTE)									00-FF							
64	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 46
65	TUNING FREQUENCY (HIGH BYTE)									00-FF							
66	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 47
67	TUNING FREQUENCY (HIGH BYTE)									00-FF							
68	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 48
69	TUNING FREQUENCY (HIGH BYTE)									00-FF							
6A	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 49
6B	TUNING FREQUENCY (HIGH BYTE)									00-FF							
6C	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 50
6D	TUNING FREQUENCY (HIGH BYTE)									00-FF							
6E	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 51
6F	TUNING FREQUENCY (HIGH BYTE)									00-FF							
70	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 52
71	TUNING FREQUENCY (HIGH BYTE)									00-FF							
72	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 53
73	TUNING FREQUENCY (HIGH BYTE)									00-FF							
74	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 54
75	TUNING FREQUENCY (HIGH BYTE)									00-FF							
76	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 55
77	TUNING FREQUENCY (HIGH BYTE)									00-FF							
78	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 56
79	TUNING FREQUENCY (HIGH BYTE)									00-FF							
7A	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 57
7B	TUNING FREQUENCY (HIGH BYTE)									00-FF							
7C	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 58
7D	TUNING FREQUENCY (HIGH BYTE)									00-FF							
7E	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 59
7F	TUNING FREQUENCY (HIGH BYTE)									00-FF							

MODEL							MODEL						
A3HE1EFG3J													
LETTER NO.							LETTER NO.						

MEMORY MAP
(Continued)

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	REMARK
80	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 60
81	TUNING FREQUENCY (HIGH BYTE)									00-FF							
82	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 61
83	TUNING FREQUENCY (HIGH BYTE)									00-FF							
84	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 62
85	TUNING FREQUENCY (HIGH BYTE)									00-FF							
86	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 63
87	TUNING FREQUENCY (HIGH BYTE)									00-FF							
88	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 64
89	TUNING FREQUENCY (HIGH BYTE)									00-FF							
8A	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 65
8B	TUNING FREQUENCY (HIGH BYTE)									00-FF							
8C	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 66
8D	TUNING FREQUENCY (HIGH BYTE)									00-FF							
8E	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 67
8F	TUNING FREQUENCY (HIGH BYTE)									00-FF							
90	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 68
91	TUNING FREQUENCY (HIGH BYTE)									00-FF							
92	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 69
93	TUNING FREQUENCY (HIGH BYTE)									00-FF							
94	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 70
95	TUNING FREQUENCY (HIGH BYTE)									00-FF							
96	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 71
97	TUNING FREQUENCY (HIGH BYTE)									00-FF							
98	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 72
99	TUNING FREQUENCY (HIGH BYTE)									00-FF							
9A	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 73
9B	TUNING FREQUENCY (HIGH BYTE)									00-FF							
9C	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 74
9D	TUNING FREQUENCY (HIGH BYTE)									00-FF							
9E	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 75
9F	TUNING FREQUENCY (HIGH BYTE)									00-FF							
A0	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 76
A1	TUNING FREQUENCY (HIGH BYTE)									00-FF							
A2	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 77
A3	TUNING FREQUENCY (HIGH BYTE)									00-FF							
A4	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 78
A5	TUNING FREQUENCY (HIGH BYTE)									00-FF							
A6	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 79
A7	TUNING FREQUENCY (HIGH BYTE)									00-FF							
A8	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 80
A9	TUNING FREQUENCY (HIGH BYTE)									00-FF							
AA	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 81
AB	TUNING FREQUENCY (HIGH BYTE)									00-FF							
AC	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 82
AD	TUNING FREQUENCY (HIGH BYTE)									00-FF							
AE	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 83
AF	TUNING FREQUENCY (HIGH BYTE)									00-FF							
B0	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 84
B1	TUNING FREQUENCY (HIGH BYTE)									00-FF							
B2	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 85
B3	TUNING FREQUENCY (HIGH BYTE)									00-FF							
B4	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 86
B5	TUNING FREQUENCY (HIGH BYTE)									00-FF							
B6	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 87
B7	TUNING FREQUENCY (HIGH BYTE)									00-FF							
B8	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 88
B9	TUNING FREQUENCY (HIGH BYTE)									00-FF							
BA	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 89
BB	TUNING FREQUENCY (HIGH BYTE)									00-FF							
BC	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 90
BD	TUNING FREQUENCY (HIGH BYTE)									00-FF							
BE	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 91
BF	TUNING FREQUENCY (HIGH BYTE)									00-FF							

MODEL							MODEL						
A3HE1EFG3J													
LETTER NO.							LETTER NO.						

MEMORY MAP
(Continued)

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	REMARK
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE (CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	
C0	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 92
C1	TUNING FREQUENCY (HIGH BYTE)									00-FF							
C2	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 93
C3	TUNING FREQUENCY (HIGH BYTE)									00-FF							
C4	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 94
C5	TUNING FREQUENCY (HIGH BYTE)									00-FF							
C6	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 95
C7	TUNING FREQUENCY (HIGH BYTE)									00-FF							
C8	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 96
C9	TUNING FREQUENCY (HIGH BYTE)									00-FF							
CA	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 97
CB	TUNING FREQUENCY (HIGH BYTE)									00-FF							
CC	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 98
CD	TUNING FREQUENCY (HIGH BYTE)									00-FF							
CE	TUNING FREQUENCY (LOW BYTE)									00-FF							POS 99
CF	TUNING FREQUENCY (HIGH BYTE)									00-FF							
D0		FAVORITE CHANNEL 1							0A	00-65							POS 10
D1		FAVORITE CHANNEL 2							14	00-65							POS 20
D2		FAVORITE CHANNEL 3							1E	00-65							POS 30
D3		FAVORITE CHANNEL 4							28	00-65							POS 40
D4			LAST CONTRAST						3C	00-3C							
D5			LAST COLOUR						1E	00-3C							
D6			LAST BRIGHTNESS						1E	00-3C							
D7			LAST TINT						1E	00-3C							
D8			LAST SHARPNESS						1E	00-3C							
D9							LAST WHITE TEMP.		01	00-02							
DA							LAST SURROUND MODE		00	00-02							
DB			LAST TREBLE						1E	00-3C							
DC			LAST BASS						1E	00-3C							
DD			LAST BALANCE						1E	00-3C							
DE								**S-Booster**	**01**	**00-01**							(2) Add S-Booster mode for user setting on SOUND menu.
DF																	
E0	POS 7	POS 6	POS 5	POS4	POS 3	POS 2	POS 1	POS 0	FF	00-FF							1= AFT ON, 0=AFT OFF
E1	POS15	POS14	POS13	POS12	POS11	POS10	POS 9	POS 8	FF	00-FF							
E2	POS23	POS22	POS21	POS20	POS19	POS18	POS17	POS16	FF	00-FF							
E3	POS31	POS30	POS29	POS28	POS27	POS26	POS25	POS24	FF	00-FF							
E4	POS39	POS38	POS37	POS36	POS35	POS34	POS33	POS32	FF	00-FF							
E5	POS47	POS46	POS45	POS44	POS43	POS42	POS41	POS40	FF	00-FF							
E6	POS55	POS54	POS53	POS52	POS51	POS50	POS49	POS48	FF	00-FF							
E7	POS63	POS62	POS61	POS60	POS59	POS58	POS57	POS56	FF	00-FF							
E8	POS71	POS70	POS69	POS68	POS67	POS66	POS65	POS64	FF	00-FF							
E9	POS79	POS78	POS77	POS76	POS75	POS74	POS73	POS72	FF	00-FF							
EA	POS87	POS86	POS85	POS84	POS83	POS82	POS81	POS80	FF	00-FF							
EB	POS95	POS94	POS93	POS92	POS91	POS90	POS89	POS88	FF	00-FF							
EC					POS99	POS98	POS97	POS96	FF	00-0F							
ED																	
EE	Blue Back	1/2 digit	TEXT			LANGUAGE			48	00-FF							
EF			LAST VOLUME						00	00-3C							
F0	POS 7	POS 6	POS 5	POS4	POS 3	POS 2	POS 1	POS 0	01	00-FF							1= SKIP ON, 0=SKIP OFF
F1	POS15	POS14	POS13	POS12	POS11	POS10	POS 9	POS 8	00	00-FF							
F2	POS23	POS22	POS21	POS20	POS19	POS18	POS17	POS16	00	00-FF							
F3	POS31	POS30	POS29	POS28	POS27	POS26	POS25	POS24	00	00-FF							
F4	POS39	POS38	POS37	POS36	POS35	POS34	POS33	POS32	00	00-FF							
F5	POS47	POS46	POS45	POS44	POS43	POS42	POS41	POS40	00	00-FF							
F6	POS55	POS54	POS53	POS52	POS51	POS50	POS49	POS48	00	00-FF							
F7	POS63	POS62	POS61	POS60	POS59	POS58	POS57	POS56	00	00-FF							
F8	POS71	POS70	POS69	POS68	POS67	POS66	POS65	POS64	00	00-FF							
F9	POS79	POS78	POS77	POS76	POS75	POS74	POS73	POS72	00	00-FF							
FA	POS87	POS86	POS85	POS84	POS83	POS82	POS81	POS80	00	00-FF							
FB	POS95	POS94	POS93	POS92	POS91	POS90	POS89	POS88	00	00-FF							
FC					POS99	POS98	POS97	POS96	00	00-0F							
FD	POWER								AA	AA(On), 55(Off)							
FE	ON TIMER VOLUME								FF	00-3C, FF							
FF	ON TIMER CHANNEL								FF	00-65, FF							
MODEL									MODEL								
A3HE1EFG3J																	
LETTER NO.									LETTER NO.								

MEMORY MAP
(Continued)

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	REMARK
100			S-SYSTEM (POS0)			C-SYSTEM (POS0)			00	00-34							
101			S-SYSTEM (POS1)			C-SYSTEM (POS1)			00	00-34							S-SYSTEM
102			S-SYSTEM (POS2)			C-SYSTEM (POS2)			00	00-34							0: B/G
103			S-SYSTEM (POS3)			C-SYSTEM (POS3)			00	00-34							1: I
104			S-SYSTEM (POS4)			C-SYSTEM (POS4)			00	00-34							2: D/K
105			S-SYSTEM (POS5)			C-SYSTEM (POS5)			00	00-34							3: M
106			S-SYSTEM (POS6)			C-SYSTEM (POS6)			00	00-34							
107			S-SYSTEM (POS7)			C-SYSTEM POS7)			00	00-34							C-SYSTEM
108			S-SYSTEM (POS8)			C-SYSTEM (POS8)			00	00-34							0: AUTO
109			S-SYSTEM (POS9)			C-SYSTEM (POS9)			00	00-34							1: PAL
10A			S-SYSTEM (POS10)			C-SYSTEM (POS10)			00	00-34							2:SECAM
10B			S-SYSTEM (POS11)			C-SYSTEM (POS11)			00	00-34							3: N443
10C			S-SYSTEM (POS12)			C-SYSTEM (POS12)			00	00-34							4:N358
10D			S-SYSTEM (POS13)			C-SYSTEM (POS13)			00	00-34							
10E			S-SYSTEM (POS14)			C-SYSTEM (POS14)			00	00-34							
10F			S-SYSTEM (POS15)			C-SYSTEM (POS15)			00	00-34							
110			S-SYSTEM (POS16)			C-SYSTEM (POS16)			00	00-34							
111			S-SYSTEM (POS17)			C-SYSTEM (POS17)			00	00-34							
112			S-SYSTEM (POS18)			C-SYSTEM (POS18)			00	00-34							
113			S-SYSTEM (POS19)			C-SYSTEM (POS19)			00	00-34							
114			S-SYSTEM (POS20)			C-SYSTEM (POS20)			00	00-34							
115			S-SYSTEM (POS21)			C-SYSTEM (POS21)			00	00-34							
116			S-SYSTEM (POS22)			C-SYSTEM (POS22)			00	00-34							
117			S-SYSTEM (POS23)			C-SYSTEM (POS23)			00	00-34							
118			S-SYSTEM (POS24)			C-SYSTEM (POS24)			00	00-34							
119			S-SYSTEM (POS25)			C-SYSTEM (POS25)			00	00-34							
11A			S-SYSTEM (POS26)			C-SYSTEM (POS26)			00	00-34							
11B			S-SYSTEM (POS27)			C-SYSTEM (POS27)			00	00-34							
11C			S-SYSTEM (POS28)			C-SYSTEM (POS28)			00	00-34							
11D			S-SYSTEM (POS29)			C-SYSTEM (POS29)			00	00-34							
11E			S-SYSTEM (POS30)			C-SYSTEM (POS30)			00	00-34							
11F			S-SYSTEM (POS31)			C-SYSTEM (POS31)			00	00-34							
120			S-SYSTEM (POS32)			C-SYSTEM (POS32)			00	00-34							
121			S-SYSTEM (POS33)			C-SYSTEM (POS33)			00	00-34							
122			S-SYSTEM (POS34)			C-SYSTEM (POS34)			00	00-34							
123			S-SYSTEM (POS35)			C-SYSTEM (POS35)			00	00-34							
124			S-SYSTEM (POS36)			C-SYSTEM (POS36)			00	00-34							
125			S-SYSTEM (POS37)			C-SYSTEM (POS37)			00	00-34							
126			S-SYSTEM (POS38)			C-SYSTEM (POS38)			00	00-34							
127			S-SYSTEM (POS39)			C-SYSTEM (POS39)			00	00-34							
128			S-SYSTEM (POS40)			C-SYSTEM (POS40)			00	00-34							
129			S-SYSTEM (POS41)			C-SYSTEM (POS41)			00	00-34							
12A			S-SYSTEM (POS42)			C-SYSTEM (POS42)			00	00-34							
12B			S-SYSTEM (POS43)			C-SYSTEM (POS43)			00	00-34							
12C			S-SYSTEM (POS44)			C-SYSTEM (POS44)			00	00-34							
12D			S-SYSTEM (POS45)			C-SYSTEM (POS45)			00	00-34							
12E			S-SYSTEM (POS46)			C-SYSTEM (POS46)			00	00-34							
12F			S-SYSTEM (POS47)			C-SYSTEM (POS47)			00	00-34							
130			S-SYSTEM (POS48)			C-SYSTEM (POS48)			00	00-34							
131			S-SYSTEM (POS49)			C-SYSTEM (POS49)			00	00-34							
132			S-SYSTEM (POS50)			C-SYSTEM (POS50)			00	00-34							
133			S-SYSTEM (POS51)			C-SYSTEM (POS51)			00	00-34							
134			S-SYSTEM (POS52)			C-SYSTEM (POS52)			00	00-34							
135			S-SYSTEM (POS53)			C-SYSTEM (POS53)			00	00-34							
136			S-SYSTEM (POS54)			C-SYSTEM (POS54)			00	00-34							
137			S-SYSTEM (POS55)			C-SYSTEM (POS55)			00	00-34							
138			S-SYSTEM (POS56)			C-SYSTEM (POS56)			00	00-34							
139			S-SYSTEM (POS57)			C-SYSTEM (POS57)			00	00-34							
13A			S-SYSTEM (POS58)			C-SYSTEM (POS58)			00	00-34							
13B			S-SYSTEM (POS59)			C-SYSTEM (POS59)			00	00-34							
13C			S-SYSTEM (POS60)			C-SYSTEM (POS60)			00	00-34							
13D			S-SYSTEM (POS61)			C-SYSTEM (POS61)			00	00-34							
13E			S-SYSTEM (POS62)			C-SYSTEM (POS62)			00	00-34							
13F			S-SYSTEM (POS63)			C-SYSTEM (POS63)			00	00-34							
MODEL									MODEL								
A3HE1EFG3J																	
LETTER NO.									LETTER NO.								

MEMORY MAP
(Continued)

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	REMARK
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	
140			S-SYSTEM (POS64)			C-SYSTEM (POS64)			00	00-34							
141			S-SYSTEM (POS65)			C-SYSTEM (POS65)			00	00-34							
142			S-SYSTEM (POS66)			C-SYSTEM (POS66)			00	00-34							
143			S-SYSTEM (POS67)			C-SYSTEM (POS67)			00	00-34							
144			S-SYSTEM (POS68)			C-SYSTEM (POS68)			00	00-34							
145			S-SYSTEM (POS69)			C-SYSTEM (POS69)			00	00-34							
146			S-SYSTEM (POS70)			C-SYSTEM (POS70)			00	00-34							
147			S-SYSTEM (POS71)			C-SYSTEM POS71)			00	00-34							
148			S-SYSTEM (POS72)			C-SYSTEM (POS72)			00	00-34							
149			S-SYSTEM (POS73)			C-SYSTEM (POS73)			00	00-34							
14A			S-SYSTEM (POS74)			C-SYSTEM (POS74)			00	00-34							
14B			S-SYSTEM (POS75)			C-SYSTEM (POS75)			00	00-34							
14C			S-SYSTEM (POS76)			C-SYSTEM (POS76)			00	00-34							
14D			S-SYSTEM (POS77)			C-SYSTEM (POS77)			00	00-34							
14E			S-SYSTEM (POS78)			C-SYSTEM (POS78)			00	00-34							
14F			S-SYSTEM (POS79)			C-SYSTEM (POS79)			00	00-34							
150			S-SYSTEM (POS80)			C-SYSTEM (POS80)			00	00-34							
151			S-SYSTEM (POS81)			C-SYSTEM (POS81)			00	00-34							
152			S-SYSTEM (POS82)			C-SYSTEM (POS82)			00	00-34							
153			S-SYSTEM (POS83)			C-SYSTEM (POS83)			00	00-34							
154			S-SYSTEM (POS84)			C-SYSTEM (POS84)			00	00-34							
155			S-SYSTEM (POS85)			C-SYSTEM (POS85)			00	00-34							
156			S-SYSTEM (POS86)			C-SYSTEM (POS86)			00	00-34							
157			S-SYSTEM (POS87)			C-SYSTEM (POS87)			00	00-34							
158			S-SYSTEM (POS88)			C-SYSTEM (POS88)			00	00-34							
159			S-SYSTEM (POS89)			C-SYSTEM (POS89)			00	00-34							
15A			S-SYSTEM (POS90)			C-SYSTEM (POS90)			00	00-34							
15B			S-SYSTEM (POS91)			C-SYSTEM (POS91)			00	00-34							
15C			S-SYSTEM (POS92)			C-SYSTEM (POS92)			00	00-34							
15D			S-SYSTEM (POS93)			C-SYSTEM (POS93)			00	00-34							
15E			S-SYSTEM (POS94)			C-SYSTEM (POS94)			00	00-34							
15F			S-SYSTEM (POS95)			C-SYSTEM (POS95)			00	00-34							
160			S-SYSTEM (POS96)			C-SYSTEM (POS96)			00	00-34							
161			S-SYSTEM (POS97)			C-SYSTEM (POS97)			00	00-34							
162			S-SYSTEM (POS98)			C-SYSTEM (POS98)			00	00-34							
163			S-SYSTEM (POS99)			C-SYSTEM (POS99)			00	00-34							
164		C-SYSTEM (AV2)				C-SYSTEM (AV1)			00	00-44							
165																	
166	[redacted]																(2) Remove SLV1~SLV6 to Sheet EEPROM MAP08(1C0H~1CBH)
167																	
168																	
169																	
16A																	
16B																	
16C																	
16D																	
16E																	
16F																	
170																	
171																	
172																	
173							TV/AV		00	0(TV), 1(AV1), 2(AV2)							
174		LAST CHANNEL POSITION							01	00-63							
175	FLASH BACK POSITION								01	00-FF							
176	ROM CORRECTION-1 ID									00-FF							
177	ROM CORRECTION-1 HIGH BYTE ADDRESS									00-FF							
178	ROM CORRECTION-1 LOW BYTE ADDRESS									00-FF							
179	ROM CORRECTION-1 DATA LENGTH									00-FF							
17A	ROM CORRECTION-1 CHECKSUM									00-FF							
17B	ROM CORRECTION-2 ID									00-FF							
17C	ROM CORRECTION-2 HIGH BYTE ADDRESS									00-FF							
17D	ROM CORRECTION-2 LOW BYTE ADDRESS									00-FF							
17E	ROM CORRECTION-2 DATA LENGTH									00-FF							
17F	ROM CORRECTION-2 CHECKSUM									00-FF							

MODEL								MODEL						
A3HE1EFG3J														
LETTER NO.								LETTER NO.						

MEMORY MAP
(Continued)

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	REMARK
180	ROM CORRECTION-1 CODE									00-FF							
181	ROM CORRECTION-1 CODE									00-FF							
182	ROM CORRECTION-1 CODE									00-FF							
183	ROM CORRECTION-1 CODE									00-FF							
184	ROM CORRECTION-1 CODE									00-FF							
185	ROM CORRECTION-1 CODE									00-FF							
186	ROM CORRECTION-1 CODE									00-FF							
187	ROM CORRECTION-1 CODE									00-FF							
188	ROM CORRECTION-1 CODE									00-FF							
189	ROM CORRECTION-1 CODE									00-FF							
18A	ROM CORRECTION-1 CODE									00-FF							
18B	ROM CORRECTION-1 CODE									00-FF							
18C	ROM CORRECTION-1 CODE									00-FF							
18D	ROM CORRECTION-1 CODE									00-FF							
18E	ROM CORRECTION-1 CODE									00-FF							
18F	ROM CORRECTION-1 CODE									00-FF							
190	ROM CORRECTION-1 CODE									00-FF							
191	ROM CORRECTION-1 CODE									00-FF							
192	ROM CORRECTION-1 CODE									00-FF							
193	ROM CORRECTION-1 CODE									00-FF							
194	ROM CORRECTION-1 CODE									00-FF							
195	ROM CORRECTION-1 CODE									00-FF							
196	ROM CORRECTION-1 CODE									00-FF							
197	ROM CORRECTION-1 CODE									00-FF							
198	ROM CORRECTION-1 CODE									00-FF							
199	ROM CORRECTION-1 CODE									00-FF							
19A	ROM CORRECTION-1 CODE									00-FF							
19B	ROM CORRECTION-1 CODE									00-FF							
19C	ROM CORRECTION-1 CODE									00-FF							
19D	ROM CORRECTION-1 CODE									00-FF							
19E	ROM CORRECTION-1 CODE									00-FF							
19F	ROM CORRECTION-1 CODE									00-FF							
1A0	ROM CORRECTION-2 CODE									00-FF							
1A1	ROM CORRECTION-2 CODE									00-FF							
1A2	ROM CORRECTION-2 CODE									00-FF							
1A3	ROM CORRECTION-2 CODE									00-FF							
1A4	ROM CORRECTION-2 CODE									00-FF							
1A5	ROM CORRECTION-2 CODE									00-FF							
1A6	ROM CORRECTION-2 CODE									00-FF							
1A7	ROM CORRECTION-2 CODE									00-FF							
1A8	ROM CORRECTION-2 CODE									00-FF							
1A9	ROM CORRECTION-2 CODE									00-FF							
1AA	ROM CORRECTION-2 CODE									00-FF							
1AB	ROM CORRECTION-2 CODE									00-FF							
1AC	ROM CORRECTION-2 CODE									00-FF							
1AD	ROM CORRECTION-2 CODE									00-FF							
1AE	ROM CORRECTION-2 CODE									00-FF							
1AF	ROM CORRECTION-2 CODE									00-FF							
1B0	ROM CORRECTION-2 CODE									00-FF							
1B1	ROM CORRECTION-2 CODE									00-FF							
1B2	ROM CORRECTION-2 CODE									00-FF							
1B3	ROM CORRECTION-2 CODE									00-FF							
1B4	ROM CORRECTION-2 CODE									00-FF							
1B5	ROM CORRECTION-2 CODE									00-FF							
1B6	ROM CORRECTION-2 CODE									00-FF							
1B7	ROM CORRECTION-2 CODE									00-FF							
1B8	ROM CORRECTION-2 CODE									00-FF							
1B9	ROM CORRECTION-2 CODE									00-FF							
1BA	ROM CORRECTION-2 CODE									00-FF							
1BB	ROM CORRECTION-2 CODE									00-FF							
1BC	ROM CORRECTION-2 CODE									00-FF							
1BD	ROM CORRECTION-2 CODE									00-FF							
1BE	ROM CORRECTION-2 CODE									00-FF							
1BF	ROM CORRECTION-2 CODE									00-FF							

MODEL								MODEL						
A3HE1EFG3J														
LETTER NO.								LETTER NO.						

MEMORY MAP
(Continued)

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	REMARK
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	
1C0	SLV1 (HIGH)								00	00-FF							(2) Remove from Sheet EEPROM MAP06(166H~171H)
1C1	SLV1 (LOW)								00	00-FF							
1C2	SLV2 (HIGH)								00	00-FF							
1C3	SLV2 (LOW)								00	00-FF							
1C4	SLV3 (HIGH)								00	00-FF							
1C5	SLV3 (LOW)								00	00-FF							
1C6	SLV4 (HIGH)								00	00-FF							
1C7	SLV4 (LOW)								00	00-FF							
1C8	SLV5 (HIGH)								00	00-FF							
1C9	SLV5 (LOW)								00	00-FF							
1CA	SLV6 (HIGH)								00	00-FF							
1CB	SLV6 (LOW)								00	00-FF							
1CC	SLV7 (HIGH)								00	00-FF							(2) Add SLV7 for S-BOOSTER.
1CD	SLV7 (LOW)								00	00-FF							
1CE																	
1CF																	
1D0																	
1D1																	
1D2																	
1D3																	
1D4																	
1D5																	
1D6																	
1D7																	
1D8																	
1D9																	
1DA																	
1DB																	
1DC																	
1DD																	
1DE																	
1DF																	
1E0																	
1E1																	
1E2																	
1E3																	
1E4																	
1E5																	
1E6																	
1E7																	
1E8																	
1E9																	
1EA																	
1EB																	
1EC																	
1ED																	
1EE																	
1EF																	
1F0																	
1F1																	
1F2																	
1F3																	
1F4																	
1F5																	
1F6																	
1F7																	
1F8																	
1F9																	
1FA																	
1FB																	
1FC																	
1FD																	
1FE																	
1FF																	
MODEL									MODEL								
A3HE1EFG3J																	
LETTER NO.									LETTER NO.								

MEMORY MAP
(Continued)

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	REMARK
200		R-DRIVE (V00)							3F	00-7F							
201		B-DRIVE (V00)							3F	00-7F							
202	R-CUTOFF (V00)								7F	00-FF							
203	G-CUTOFF (V00)								7F	00-FF							
204	B-CUTOFF (V00)								7F	00-FF							
205		RF-AGC (V01)							32	00-7F							
206			VIF-VCO (V02)						1F	00-3F							
207						H-VCO (V03)			03	00-07							
208		SUB CONTRAST (V04)							64	00-7F							
209		SUB COLOUR (V05)							3F	00-7F							
20A	SUB BRIGHTNESS (V06)								7F	00-FF							
20B		SUB TINT (V07)							3F	00-7F							
20C			SUB SHARPNESS (V08)						2B	00-3F							
20D		SUB-COLOUR-YUV (V09)							5A	00-7F							
20E		SUB-TINT-YUV (V10)							3F	00-7F							
20F			V-SIZE-50Hz (V11)						26	00-3F							
210						V-SHIFT-50Hz (V12)			03	00-07							
211				H-SHIFT-50Hz (V13)					09	00-1F							
212			SECAM BR (V14)						25	00-3F							
213			SECAM BB (V15)						16	00-3F							
214			SUB VOLUME (V16)						3C	00-3C							
215			V-SIZE-60Hz (V17)						1F	00-3E							
216					V-SHIFT-60Hz (V18)				06	00-0E							
217				H-SHIFT-60Hz (V19)					11	00-1E							
218					S-TRAP-BG (V20)				07	00-0F							
219					S-TRAP-I (V21)				07	00-0F							
21A					S-TRAP-DK (V22)				07	00-0F							
21B					S-TRAP-M (V23)				07	00-0F							
21C					S-TRAP-574 (V24)				07	00-0F							
21D																	
21E																	
21F																	
220																	
221																	
222																	
223																	
224																	
225																	
226																	
227																	
228																	
229																	
22A																	
22B																	
22C																	
22D																	
22E																	
22F																	
230		S-OUT-LEVEL (F11)							5F	00-7F							
231						VIF-G (F12)			04	00-07							
232						YDL (F18)			05	00-07							
233						YDL-PAL (F19)			05	00-07							
234						YDL-SECAM (F20)			07	00-07							
235						YDL-N443 (F21)			05	00-07							
236						YDL-N358 (F22)			05	00-07							
237						YDL-AV (F23)			06	00-07							
238						YDL-AV-PAL (F24)			06	00-07							
239						YDL-AV-SECAM (F25)			07	00-07							
23A						YDL-AV-N443 (F26)			06	00-07							
23B						YDL-AV-N358 (F27)			06	00-07							
23C						YDL-YUV (F28)			06	00-07							
23D			COLOUR-AV (F29)						29	00-3E							
23E			COLOUR-PAL (F30)						1F	00-3E							
23F			COLOUR-SECAM (F31)						28	00-3E							
MODEL									MODEL								
A3HE1EFG3J																	
LETTER NO.									LETTER NO.								

MEMORY MAP
(Continued)

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	REMARK
240	COLOUR-N443 (F32)								17	00-3E							
241	COLOUR-N358 (F33)								18	00-3E							
242	COLUR-ADJ (F34)								1F	00-3E							
243	SHARPNESS-AV (F35)								24	00-3E							
244	SHARPNESS-YUV (F36)								1F	00-3E							
245	SHARPNESS-PAL (F37)								1F	00-3E							
246	SHARPNESS-SECAM (F38)								1A	00-3E							
247	SHARPNESS-N443 (F39)								1F	00-3E							
248	SHARPNESS-N358 (F40)								1F	00-3E							
249	TINT-AV (F41)								3F	00-7E							
24A	TINT-ADJ (F42)								3F	00-7E							
24B	TINT-YUV-ADJ (F43)								3F	00-7E							
24C	R-R DRIVE (F44)								47	00-7E							
24D	B-R DRIVE (F45)								35	00-7E							
24E	R-B DRIVE (F46)								3C	00-7E							
24F	B-B DRIVE (F47)								4F	00-7E							
250								TRAP (F53)	02	00-03							
251								TRAP-PAL (F54)	02	00-03							
252								TRAP-SECAM (F55)	02	00-03							
253								TRAP-N443 (F56)	02	00-03							
254								TRAP-N358 (F57)	02	00-03							
255								GAMMA (F62)	00	00-03							
256							BS-D/C (F63)		0A	00-0F							
257							SL-TV (F66)		02	00-07							
258							SL-AV (F67)		04	00-07							
259							SL-YUV (F68)		04	00-07							
25A						VD2/VD1/AS/FBP-TV (F69)			06	00-0F							
25B						VD2/VD1/AS/FBP-AV (F70)			0E	00-0F							
25C						VD2/VD1/AS/FBP-YUV (F71)			0E	00-0F							
25D								VDL (F72)	00	00-03							
25E								UDL (F73)	00	00-03							
25F								AUTO-SCM-KIL-TV (F74)	01	00-03							
260								SECAM-BGP (F76)	00	00-03							
261				TXT-POS-H (F80)					1E	00-3F							
262				TXT-POS-V (F81)					22	00-3F							
263			OSD-POS (F82)						09	00-7F							
264							SUB-BASS (F85)		06	00-07							
265							SUB-TREBLE (F86)		00	00-07							
266							AGC-ADJ (F87)		00	00-04							
267					AGC-GAIN-ADJUST (F89)				**10**	00-1F							(1) Change default value 00 to 10.
268					FM-LEVEL-ADJUST (F90)				0F	00-1E							
269					IGR-LEVEL-ADJUST (F91)				10	00-1E							
26A					NICAM-BG-LEVEL-ADJUST (F92)				0D	00-1E							
26B					NICAM-I-LEVEL-ADJUST (F93)				12	00-1E							
26C					NICAM-DK-LEVEL-ADJUST (F94)				0E	00-1E							
26D	NICAM-LOWER-ERROR-LIMIT (F95)								23	00-FF							
26E	NICAM-UPPER-ERROR-LIMIT (F96)								46	00-FF							
26F						IGR-GAIN-ADJUST (F97)			06	00-0D							
270								FM-ID-SPEED (F98)	01	00-03							
271								AUTO-SCM-KIL-AV-YUV (F101)	01	00-03							
272								AFC1-GAIN-TV (F102)	00	00-03							
273								AFC1-GAIN-AV (F103)	03	00-03							
274								AFC1-GAIN-YUV (F104)	03	00-03							
275								CON-REDUCE (F105)	00	00-02							
276	STANDBY-WO-BRIGHT (F110)								FF	00-FF							
277	AC-FAIL-WO-BRIGHT (F111)								FF	00-FF							
278								FORCED-SCM-KIL-TV (F112)	02	00-03							
279								FORCED-SCM-KIL-AV-YUV (F113)	02	00-03							
27A	**VIDEO-DEMUTE-DELAY (F115)**								**00**	**00-FF**							(1) New Item F115.
27B	**SOUND-DEMUTE-DELAY (F116)**								**00**	**00-FF**							(1) New Item F116.
27C																	
27D																	
27E																	
27F																	
MODEL									MODEL								
A3HE1EFG3J																	
LETTER NO.									LETTER NO.								

MEMORY MAP
(Continued)

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	REMARK
280	BS OFF (F08)	RGB CLIP (F07)	C.CLIP-LVL (F06)	STrapQ-574 (F05)	STrapQ-M (F04)	STrapQ-DK (F03)	STrapQ-I (F02)	STrapQ-BG (F01)	00	00-FF							
281	Ana-OSD (F100)	ABCL-G (F10)	ABCL (F09)	SHP-G-N3 (F17)	SHP-G-N4 (F16)	SHP-G-SCM (F15)	SHP-G-PAL (F14)	SHP-G (F13)	10	00-FF							
282	V-FREE (F60)	1W-AV (F59)	1W-TV (F58)	DT-N3 (F52)	DT-N4 (F51)	DT-S (F50)	DT-P (F49)	DT (F48)	44	00-FF							
283	PLL-CP (F83)	DL-Vout (F79)	DL-REV (F78)	N45 (F77)	SCM-YDL (F75)	OM DET (F65)	BS GAIN (F64)	AFC2 (F61)	80	00-FF							
284	AV2 (O11)	AV (O10)	Forced-Col (O08)	N358-TV (O07)	N443-TV (O06)	SECAM (O05)	VIF (O04)	HOTEL (O01)	DE	00-FF							
285	LED-CONT (O21)	R/C MENU (O20)	BIL (O17)	TEXT (O16)	A2 (O15)	NICAM (O14)	S-CTR (O13)	YUV (O12)	03	00-FF							
286					M (O09)	D/K (O09)	I (O09)	B/G (O09)	0F	01-0F							
287			Arabic (O18)	Malay (O18)	Russian (O18)	France (O18)	Chinese (O18)	Engilish (O18)	3F	01-3F							
288						SEARCH SPEED (O19)			03	01-05							
289	HOTEL CHANNEL POSITION (O02)								FF	00-63, FF							
28A	HOTEL VOLUME (O03)								FF	00-3C, FF							
28B						NICAM-AUTO-MUTE (F99)	AGC-SW-OFF (F88)	SMALL-SURR (F84)	**02**	00-07							(1) Change default value 00 to 02.
28C			**Pow-Storage (F127)**	**R-Y Adj. (F114)**	C-ANGLE (F109)	TAKE-OFF-YUV (F108)	TAKE-OFF-AV (F107)	TAKE-OFF-TV (F106)	09	**00-3F**							(1) Added R-Y Adj. (2) Add Pow-Storage
28D							**Sharp-logo (O23)**	**S-Booster (O22)**	**00**	**00-03**							(2) Add Sharp-logo and S-Booster.
28E	**MER (F117)**								**46**	**00-FF**							(2) Add MER
28F	**MEL1 (F118)**								**96**	**00-FF**							(2) Add MEL1
290	**MEL2 (F119)**								**9C**	**00-FF**							(2) Add MEL2
291	**MEL3 (F120)**								**A3**	**00-FF**							(2) Add MEL3
292	**MEL4 (F121)**								**A5**	**00-FF**							(2) Add MEL4
293	**MEL5 (F122)**								**AA**	**00-FF**							(2) Add MEL5
294	**MEL6 (F123)**								**B4**	**00-FF**							(2) Add MEL6
295			**S-Start Point (F124)**						**15**	**00-3C**							(2) Add S-Start Point
296			**S-Stop Point (F125)**						**3C**	**00-3C**							(2) Add S-Stop Point
297			**S-Step (F126)**						**07**	**00-3C**							(2) Add S-Step
298			**S-B-BASS (F128)**						**2D**	**00-3C**							(2) Add S-B-BASS
299			**S-B-TREB (F129)**						**2D**	**00-3C**							(2) Add S-B-TREB
29A			**S-BASS (F130)**						**3C**	**00-3C**							(2) Add S-BASS
29B			**S-TREB (F131)**						**3C**	**00-3C**							(2) Add S-TREB
29C																	
29D																	
29E																	
29F																	
2A0																	
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2B8																	
2B9																	
2BA																	
2BB																	
2BC																	
2BD																	
2BE																	
2BF																	
MODEL									MODEL								
A3HE1EFG3J																	
LETTER NO.									LETTER NO.								

MEMORY MAP
(Continued)

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	REMARK
2C0																	
2C1																	
2C2																	
2C3																	
2C4																	
2C5																	
2C6																	
2C7																	
2C8																	
2C9																	
2CA																	
2CB																	
2CC																	
2CD																	
2CE																	
2CF																	
2D0																	
2D1																	
2D2																	
2D3																	
2D4																	
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2D7																	
2D8																	
2D9																	
2DA																	
2DB																	
2DC																	
2DD																	
2DE																	
2DF																	
2E0																	
2E1																	
2E2																	
2E3																	
2E4																	
2E5																	
2E6																	
2E7																	
2E8																	
2E9																	
2EA																	
2EB																	
2EC																	
2ED																	
2EE																	
2EF																	
2F0																	
2F1																	
2F2																	
2F3																	
2F4																	
2F5																	
2F6																	
2F7																	
2F8																	
2F9																	
2FA																	
2FB																	
2FC																	
2FD																	
2FE																	
2FF																	
MODEL									MODEL								
A3HE1EFG3J																	
LETTER NO.									LETTER NO.								

*1 0 : individually selectable rating system 1 : threshold selectable rating system

*2 0 : CATEGORY bit mask with (01,05) 1st character 1 : CATEGORY bit mask with (01,05) 2nd character

MEMORY MAP
(Continued)

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	REMARK
300	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 0
301	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 1
302	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 2
303	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 3
304	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 4
305	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 5
306	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 6
307	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 7
308	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 8
309	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 9
30A	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 10
30B	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 11
30C	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 12
30D	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 13
30E	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 14
30F	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 15
310	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 16
311	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 17
312	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 18
313	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 19
314	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 20
315	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 21
316	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 22
317	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 23
318	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 24
319	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 25
31A	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 26
31B	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 27
31C	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 28
31D	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 29
31E	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 30
31F	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 31
320	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 32
321	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 33
322	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 34
323	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 35
324	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 36
325	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 37
326	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 38
327	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 39
328	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 40
329	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 41
32A	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 42
32B	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 43
32C	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 44
32D	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 45
32E	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 46
32F	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 47
330	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 48
331	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 49
332	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 50
333	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 51
334	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 52
335	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 53
336	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 54
337	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 55
338	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 56
339	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 57
33A	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 58
33B	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 59
33C	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 60
33D	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 61
33E	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 62
33F	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 63
MODEL									MODEL								
A3HE1EFG3J																	
LETTER NO.									LETTER NO.								

MEMORY MAP
(Continued)

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	REMARK
340	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 64
341	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 65
342	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 66
343	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 67
344	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 68
345	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 69
346	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 70
347	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 71
348	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 72
349	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 73
34A	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 74
34B	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 75
34C	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 76
34D	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 77
34E	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 78
34F	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 79
350	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 80
351	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 81
352	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 82
353	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 83
354	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 84
355	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 85
356	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 86
357	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 87
358	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 88
359	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 89
35A	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 90
35B	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 91
35C	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 92
35D	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 93
35E	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 94
35F	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 95
360	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 96
361	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 97
362	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 98
363	A2 FM	A2 ST	A2 BIL1	NCM FM	NCM MONO	NCM ST	NCM BIL2	NCM BIL1	4C	00-FF							POS 99
364																	
365																	
366																	
367																	
368																	
369																	
36A																	
36B																	
36C																	
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378																	
379																	
37A																	
37B																	
37C																	
37D																	
37E																	
37F																	
MODEL									MODEL								
A3HE1EFG3J																	
LETTER NO.									LETTER NO.								

MEMORY MAP
(Continued)

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	REMARK
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	
380																	
381																	
382																	
383																	
384																	
385																	
386																	
387																	
388																	
389																	
38A																	
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38C																	
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3B8																	
3B9																	
3BA																	
3BB																	
3BC																	
3BD																	
3BE																	
3BF																	
MODEL									MODEL								
A3HE1EFG3J																	
LETTER NO.									LETTER NO.								

MEMORY MAP
(Continued)

SLAVE ADDRESS : A0(00-FF) A2(100-1FF) A4(200-2FF) A6(300-3FF)

ADDRESS	DATA								MICON	EEPROM	EEPROM	CHASSIS		CTV FINAL		LAST INITIAL	
(HEX)	D7	D6	D5	D4	D3	D2	D1	D0	DEFAULT	RANGE	WRITE(CPU)	CHECK DATA	CHECK TYPE	CHECK DATA	CHECK TYPE	SETTING DATA	REMARK
3C0																	
3C1																	
3C2																	
3C3																	
3C4																	
3C5																	
3C6																	
3C7																	
3C8																	
3C9																	
3CA																	
3CB																	
3CC																	
3CD																	
3CE																	
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3D0																	
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3DA																	
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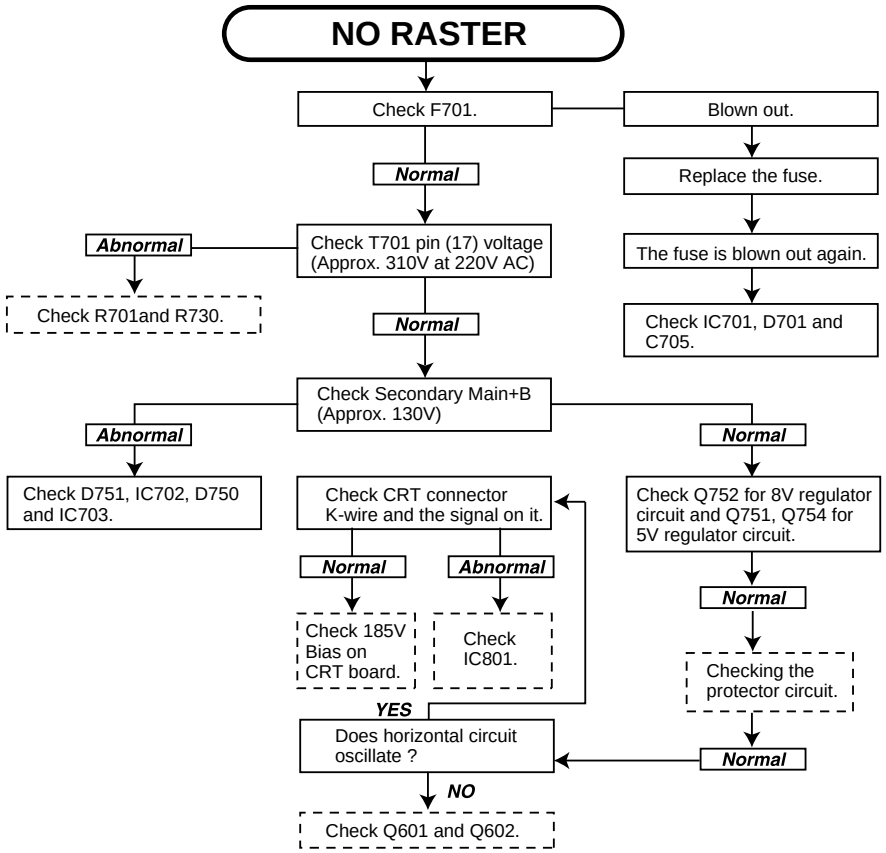
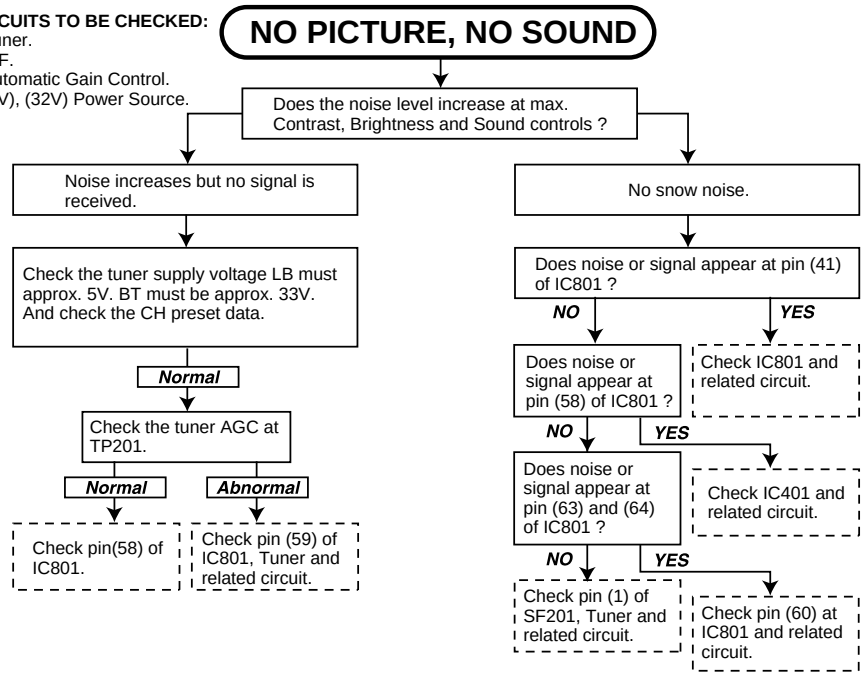
3FA																	
3FB																	
3FC																	
3FD																	
3FE																	
3FF																	
MODEL									MODEL								
A3HE1EFG3J																	
LETTER NO.									LETTER NO.								

TROUBLE SHOOTING TABLE

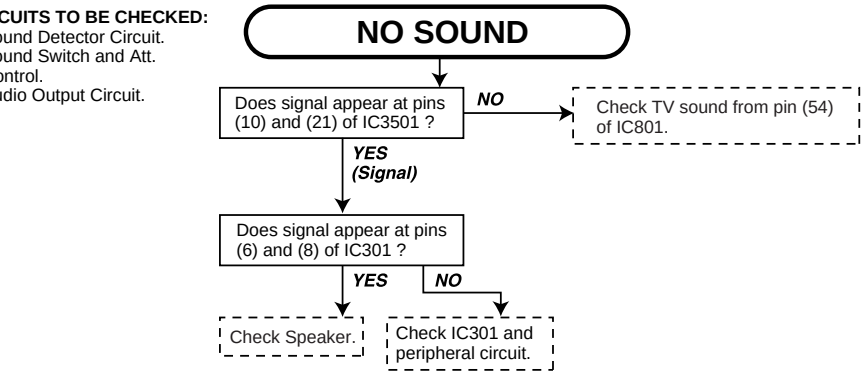


TROUBLE SHOOTING TABLE (Continued)

CIRCUITS TO BE CHECKED:
- Tuner.
- PIF.
- Automatic Gain Control.
- (5V), (32V) Power Source.


NO PICTURE, NO SOUND
Does the noise level increase at max. Contrast, Brightness and Sound controls ?
Noise increases but no signal is received.
No snow noise.
Check the tuner supply voltage LB must approx. 5V. BT must be approx. 33V. And check the CH preset data.
Does noise or signal appear at pin (41) of IC801 ?
NO
YES
Normal
Does noise or signal appear at pin (58) of IC801 ?
Check IC801 and related circuit.
Check the tuner AGC at TP201.
NO
YES
Normal
Abnormal
Does noise or signal appear at pin (63) and (64) of IC801 ?
Check IC401 and related circuit.
Check pin(58) of IC801.
Check pin (59) of IC801, Tuner and related circuit.
NO
YES
Check pin (1) of SF201, Tuner and related circuit.
Check pin (60) at IC801 and related circuit.

CIRCUITS TO BE CHECKED:
- Sound Detector Circuit.
- Sound Switch and Att. Control.
- Audio Output Circuit.


NO SOUND
Does signal appear at pins (10) and (21) of IC3501 ?
NO
Check TV sound from pin (54) of IC801.
YES (Signal)
Does signal appear at pins (6) and (8) of IC301 ?
YES
NO
Check Speaker.
Check IC301 and peripheral circuit.

TROUBLE SHOOTING TABLE (Continued)

NEITHER VERTICAL NOR HORIZONTAL SYNCHRONIZATION

CIRCUIT TO BE CHECKED:
- Sync. Separator Circuit.

Check pins(5), (6), (10) and (11) of IC801.

DEFECTIVE VERTICAL AMP. AND VERTICAL LINEARITY

Re-adjust vertical size. (Bus Data)

Vertical linearity and size are abnormal.

Check R503, R506, R513, R520 and C515.

NO VERTICAL SCAN

Check IC501 bias.

- *Normal* → Check C511.
- *Abnormal* → Check IC501.

TROUBLE SHOOTING TABLE (Continued)

NO SPECIFIC COLOUR

Is some colour produced in B/W broadcast reception ?

- *YES* → Check IC801.
- *NO* → Is the white balance properly adjusted ?
  - *YES* → The picture colour is cyan. → Check Q855 and its adjacent circuits.
  - *YES* → The picture colour is magenta. → Check Q854 and its adjacent circuits.
  - *YES* → The picture colour is yellow. → Check Q853 and its adjacent circuits.
  - *NO* → Re-adjust the white balance.

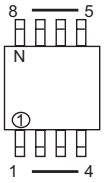
NO SPECIFICATION COLOUR "PAL / SECAM / NTSC" (NO COLOUR SYNCHRONIZATION)

Check IC801 and bias control circuit.

- (PAL / SECAM) *Normal* → Check X801.(4.43MHz)
- (NTSC) *Normal* → Check Q202 and peripheral circuit.

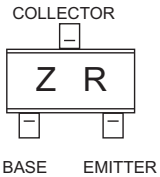
SOLID STATE DEVICE BASE DIAGRAM

TOP VIEW

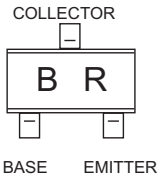


M24C08W

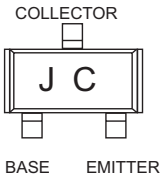
FXA003WJ



D601A

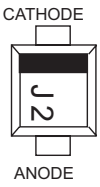


B709A

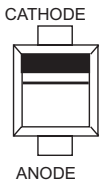


2SC2735

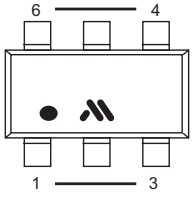
EX1393CE



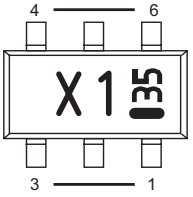
EX0867CE



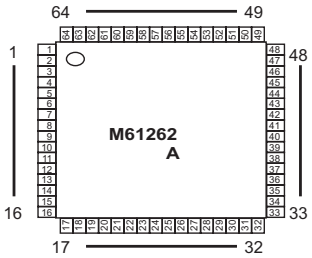
1SS356



M1501XN

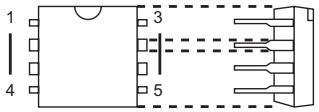


IMX1C/C

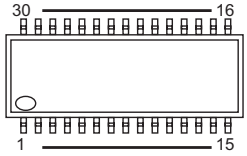


M61262FP

IXA319WJ

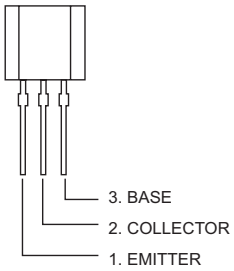


TEA1507

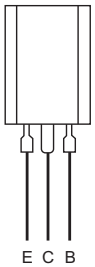


NJW1142

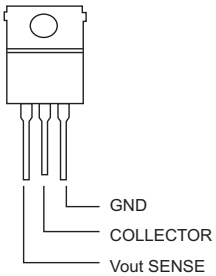
SIDE VIEW



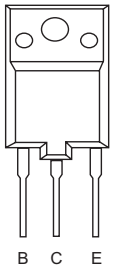
2PC1815Y
2PC1815G



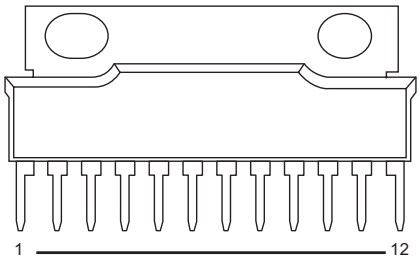
2SC2236Y
2SC2482



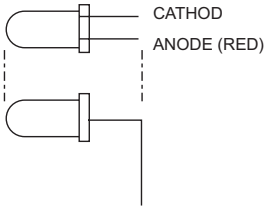
SE130N



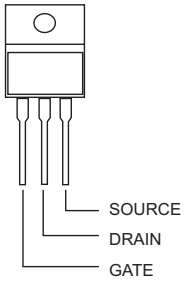
2SD2539



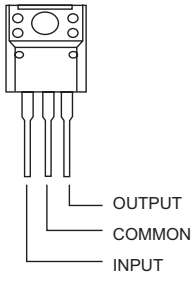
AN17810



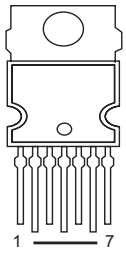
PX0013



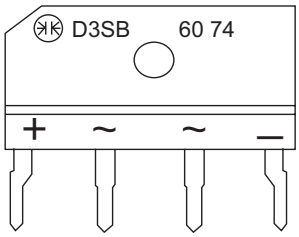
S7KM16A1



KA7809A



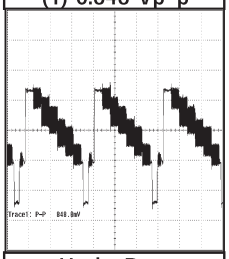
STV9302A



DX0476CE

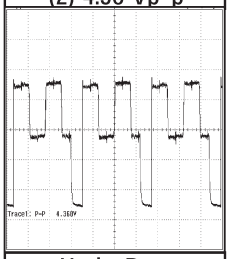
WAVEFORMS

(1) 0.848 Vp-p



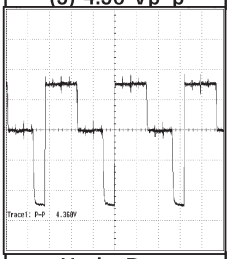
Horiz. Rate

(2) 4.36 Vp-p



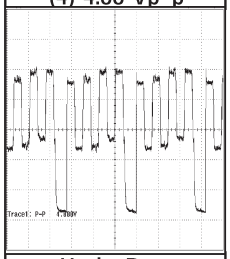
Horiz. Rate

(3) 4.36 Vp-p



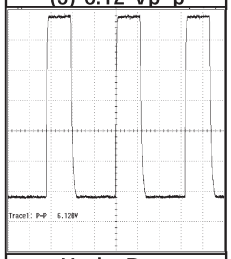
Horiz. Rate

(4) 4.88 Vp-p



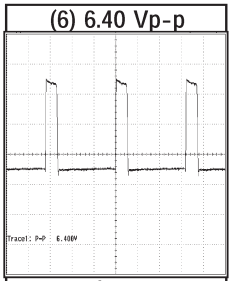
Horiz. Rate

(5) 6.12 Vp-p



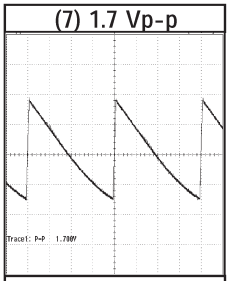
Horiz. Rate

(6) 6.40 Vp-p



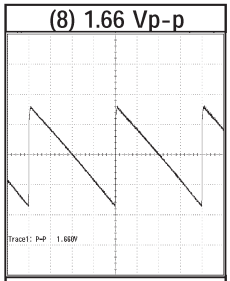
Horiz. Rate

(7) 1.7 Vp-p



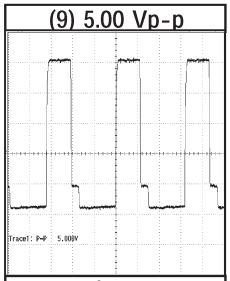
Vert. Rate

(8) 1.66 Vp-p



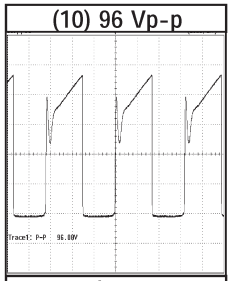
Vert. Rate

(9) 5.00 Vp-p



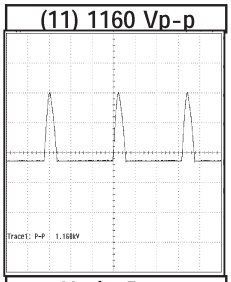
Horiz. Rate

(10) 96 Vp-p



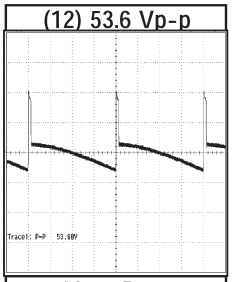
Horiz. Rate

(11) 1160 Vp-p



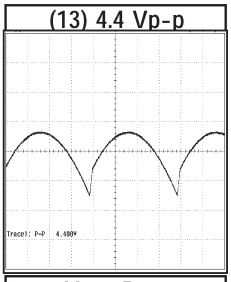
Horiz. Rate

(12) 53.6 Vp-p



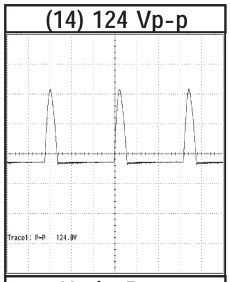
Vert. Rate

(13) 4.4 Vp-p



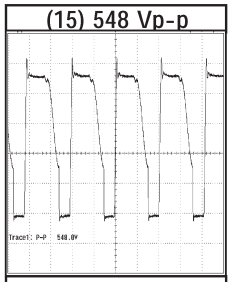
Vert. Rate

(14) 124 Vp-p



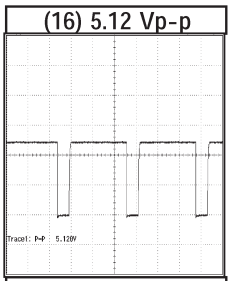
Horiz. Rate

(15) 548 Vp-p



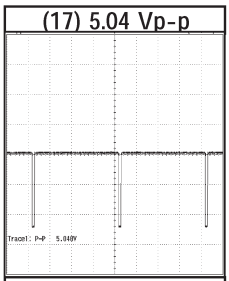
-

(16) 5.12 Vp-p



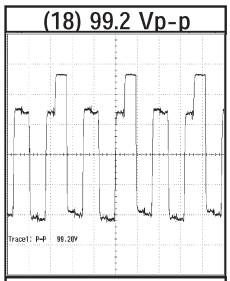
Horiz. Rate

(17) 5.04 Vp-p



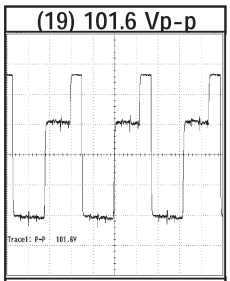
Vert. Rate

(18) 99.2 Vp-p



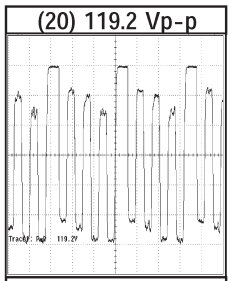
Horiz. Rate

(19) 101.6 Vp-p



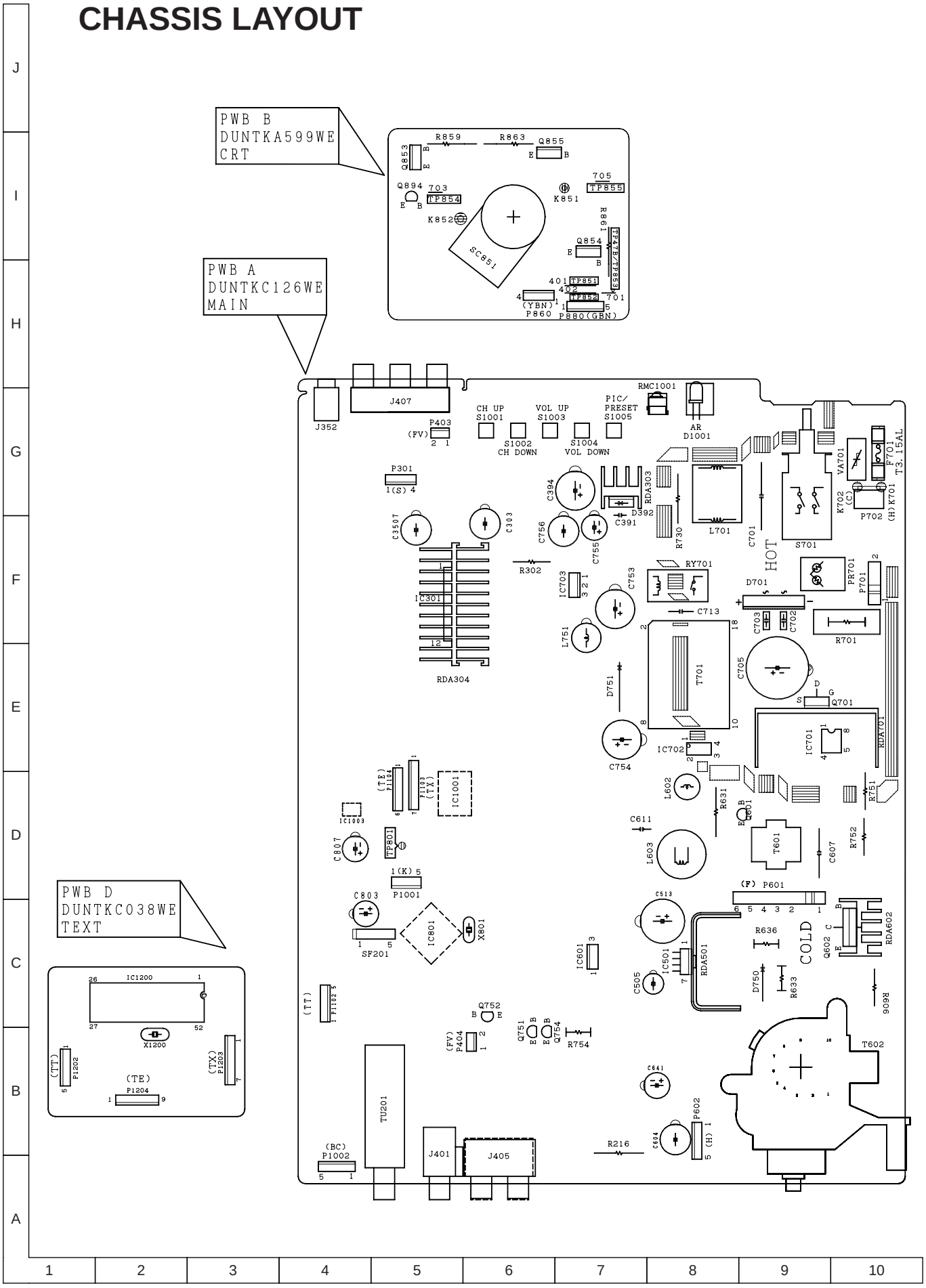
Horiz. Rate

(20) 119.2 Vp-p



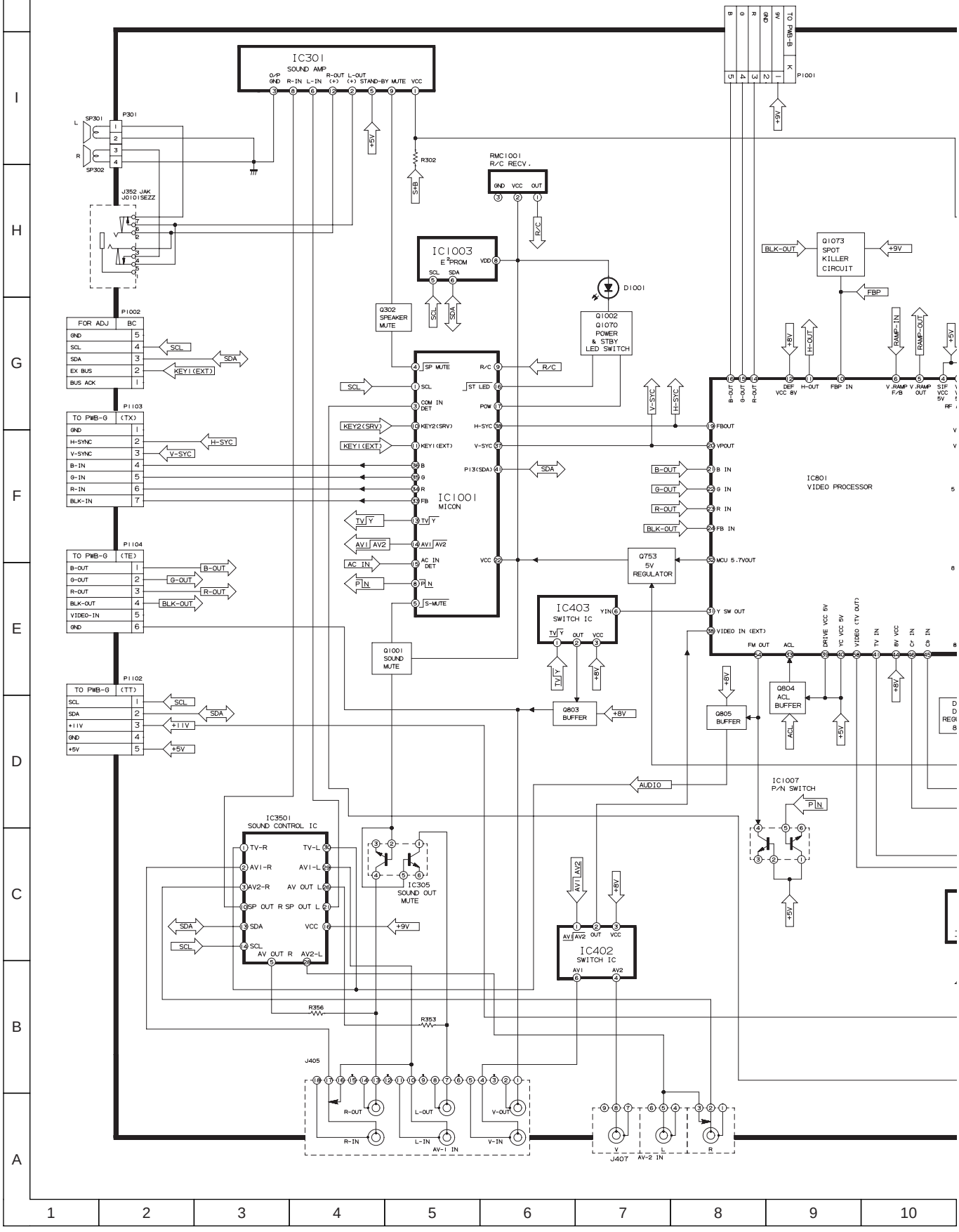
Horiz. Rate

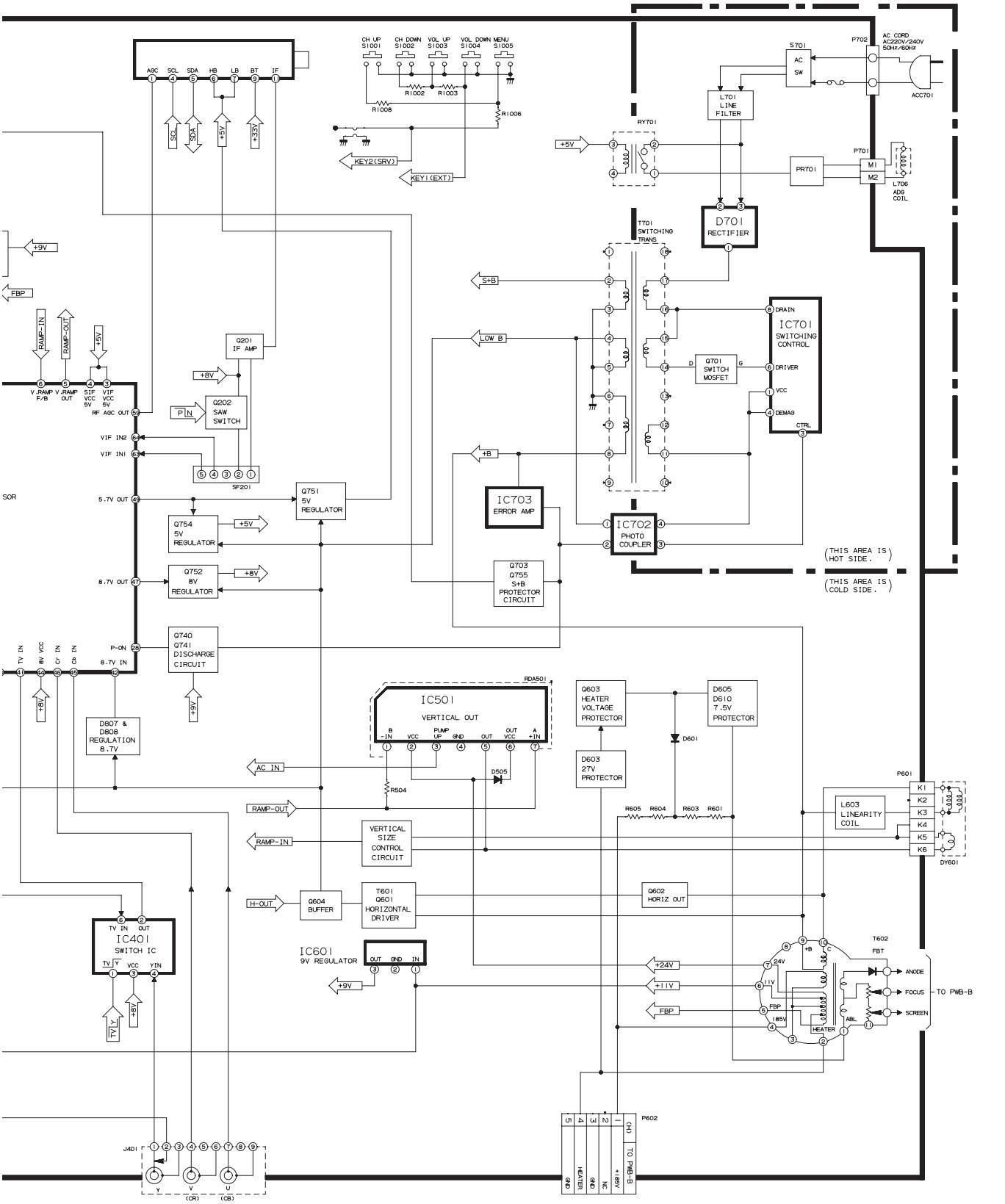
CHASSIS LAYOUT



BLOCK DIAGRAM

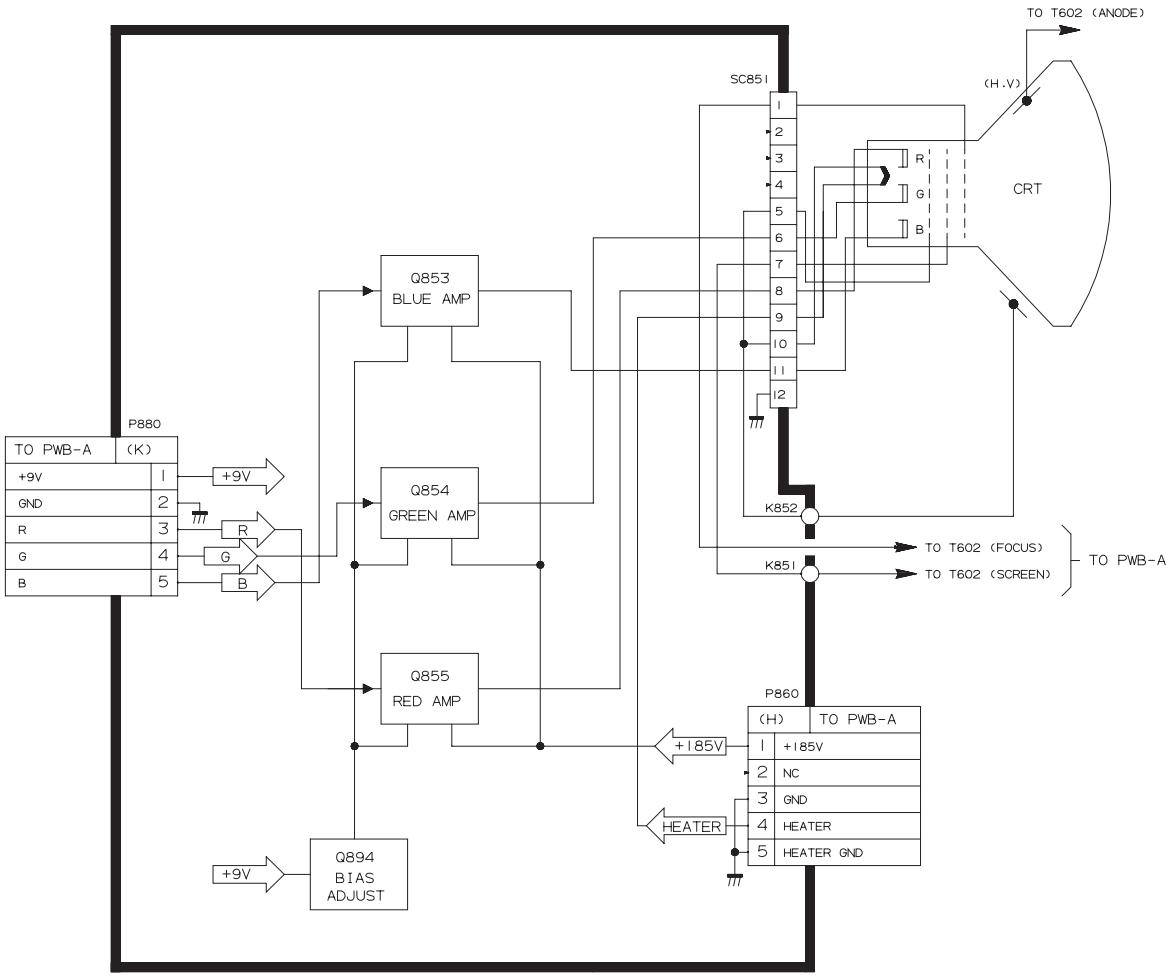
PWB-A MAIN UNIT



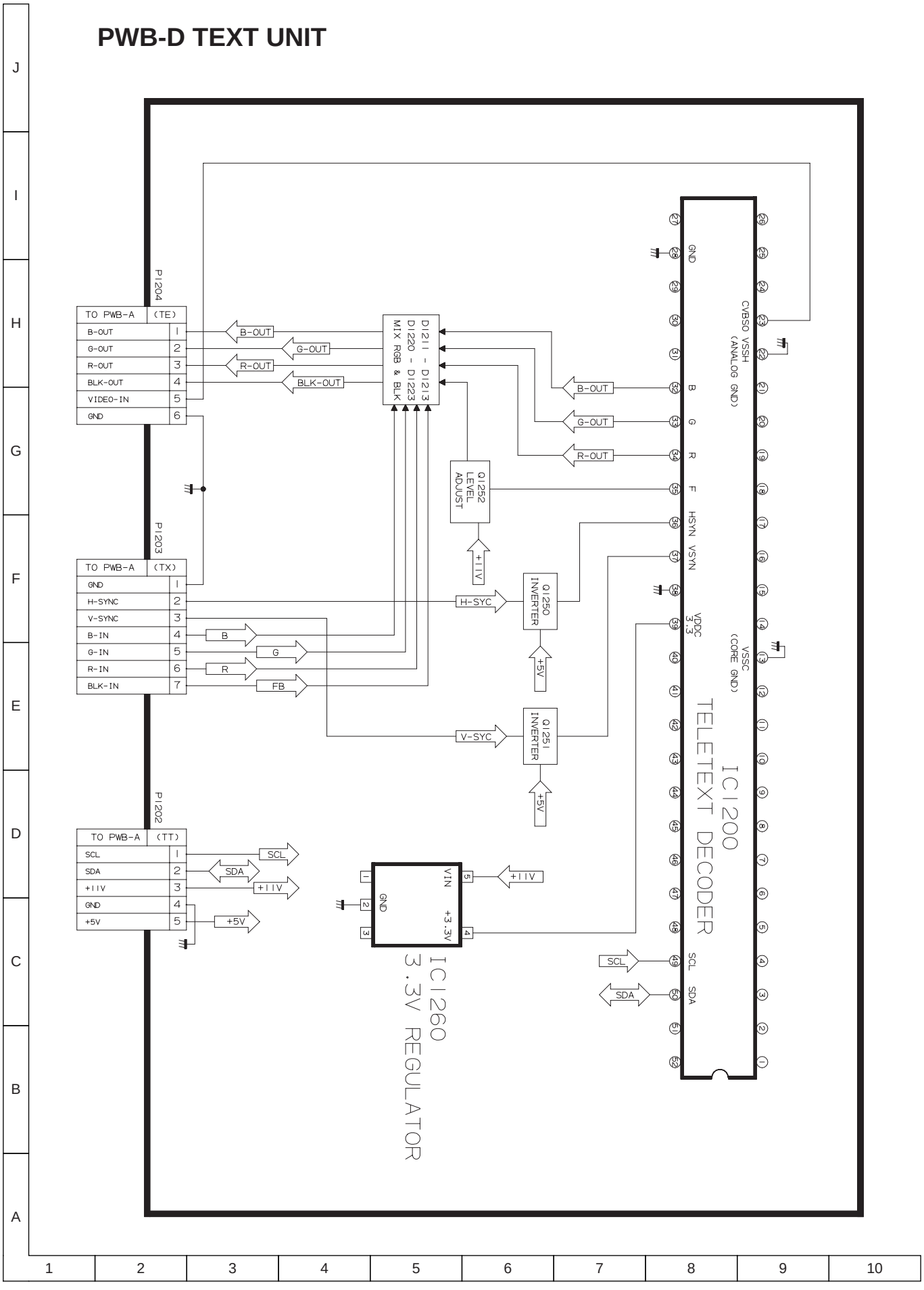


10	11	12	13	14	15	16	17	18	19

PWB-B CRT UNIT



PWB-D TEXT UNIT



DESCRIPTION OF SCHEMATIC DIAGRAM

SAFETY NOTES:

1. *DISCONNECT THE AC PLUG FROM THE AC OUTLET BEFORE REPLACING PARTS.*
2. *SEMICONDUCTOR HEAT SINKS SHOULD BE REGARDED AS POTENTIAL SHOCK HAZARDS WHEN THE CHASSIS IS OPERATING.*

IMPORTANT SAFETY NOTICE:

PARTS MARKED WITH "⚠ " ( ) ARE IMPOTANT FOR MAINTAINING THE SAFETY OF THE SET. BE SURE TO REPLACE THESE PARTS WITH SPECIFIED ONES FOR MAINTAINING THE SAFETY AND PERFORMANCE OF THE SET.

SERVICE PRECAUTION:

THE AREA ENCLOSED BY THIS LINE (── - ──) IS DIRECTLY CONNECTED WITH AC MAINS VOLTAGE.
WHEN SERVICING THE AREA, CONNECT AN ISOLATING TRANSFORMER BETWEEN TV RECEIVER AND AC LINE TO ELIMINATE HAZARD OF ELECTRIC SHOCK.

NOTES:

1. *The unit of resistance "ohm" is omitted. (K = 1000 ohms, M = Mega ohm).*
2. *All resistors are 1/16 watt, unless otherwise noted.*
3. *All capacitors are μF, unless otherwise noted. (P = μμF).*

VOLTAGE MEASUREMENT CONDITIONS:

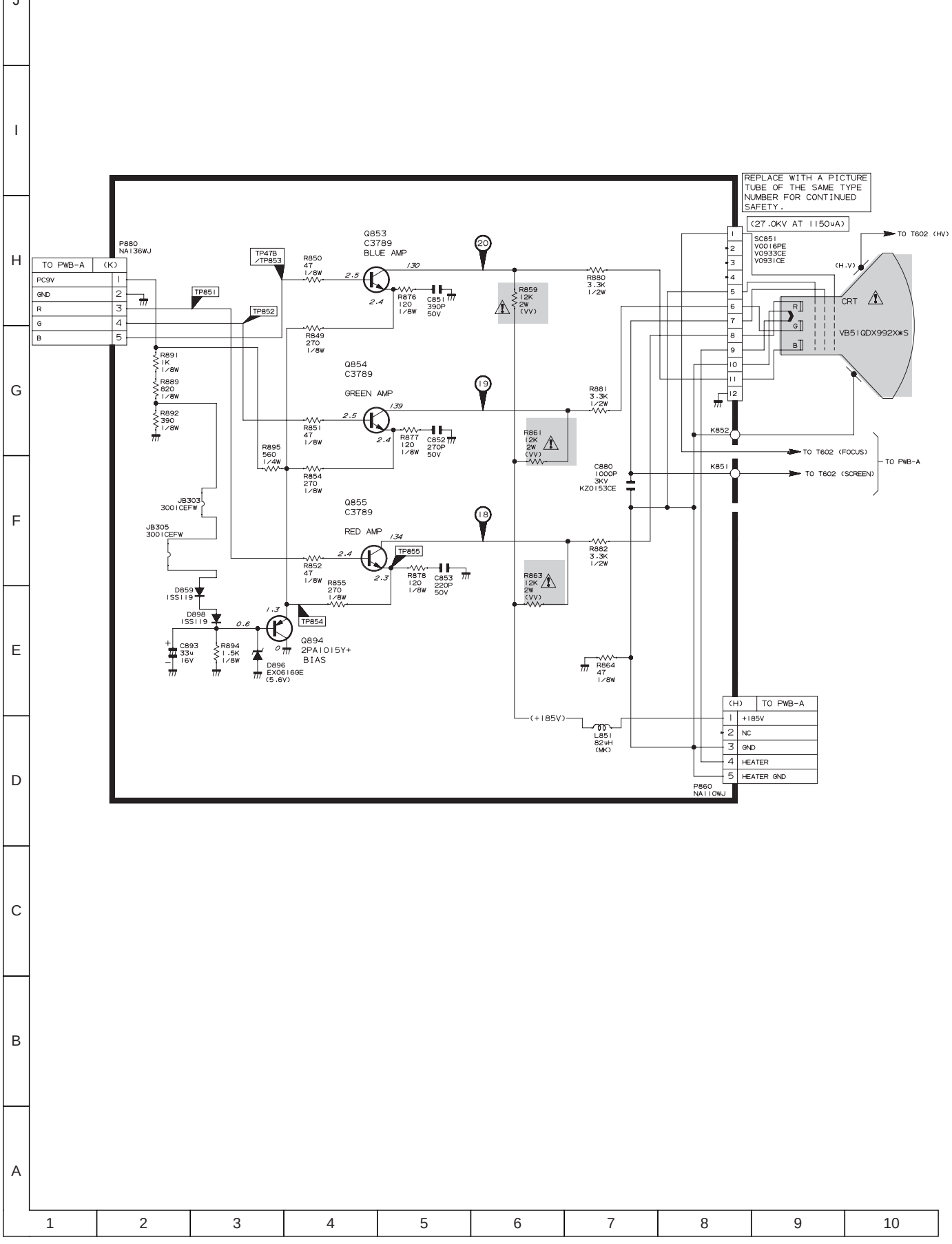
1. *Voltages in parenthesis measured with no signal.*
2. *Voltages without parenthesis measured with 3mV B & W or Colour signal.*
3. *All the voltages in each point are measured with VTVM.*

WAVEFORM MEASUREMENT CONDITIONS:

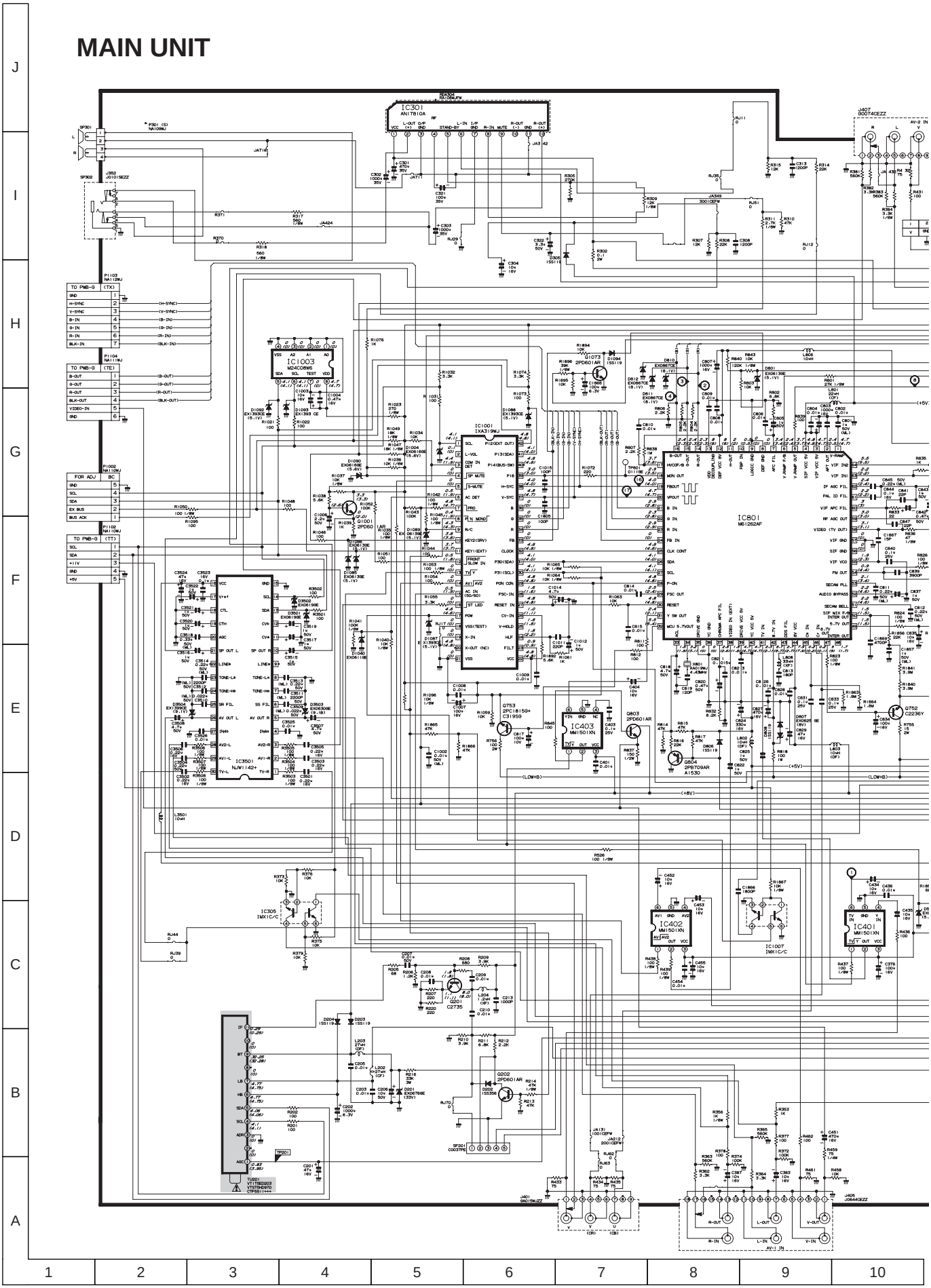
1. *The colour bar generator signal of 1.0V peak applied at pin (41) of IC801.*
2. *Approximately 4V AGC bias .*

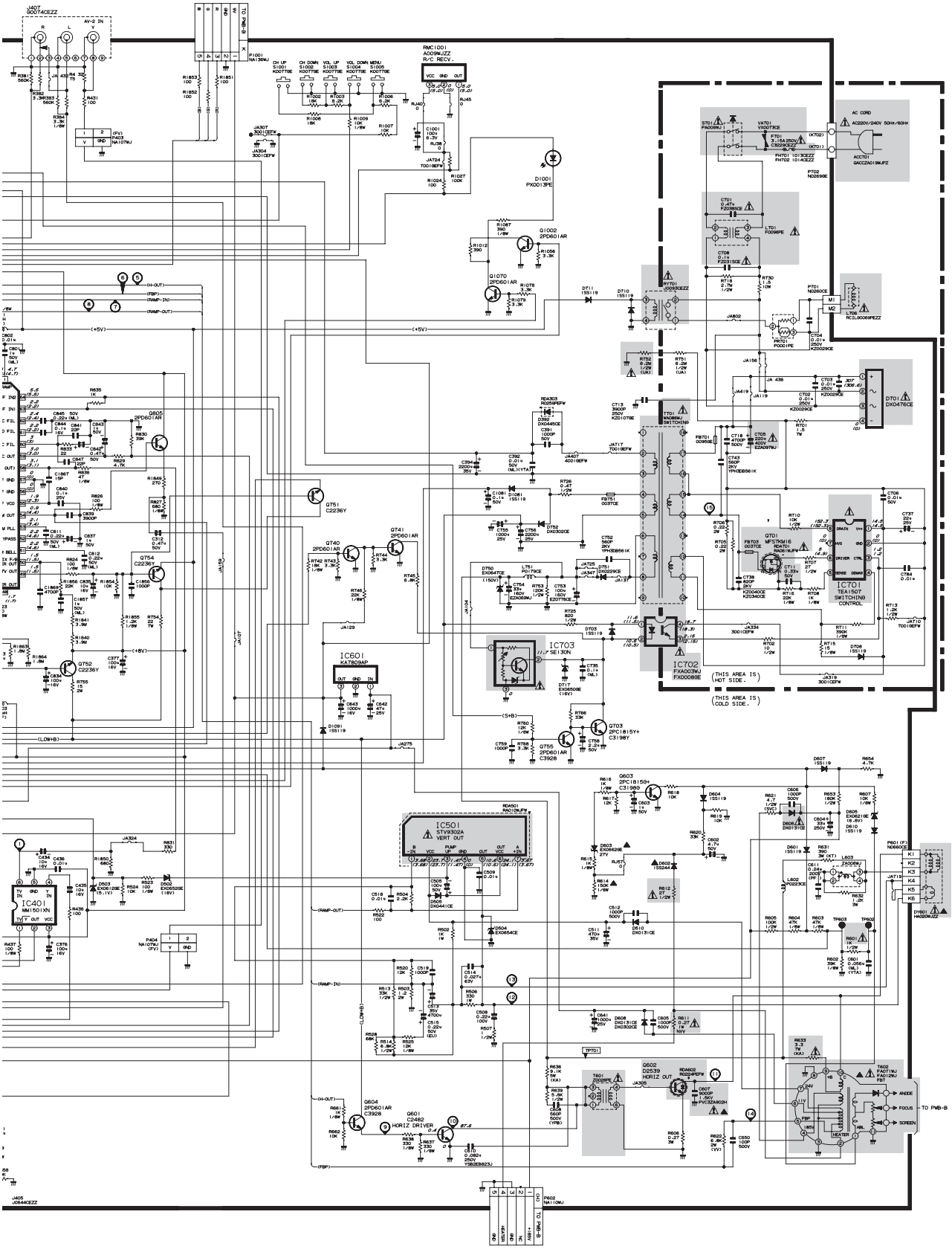
SCHEMATIC DIAGRAM

CRT UNIT



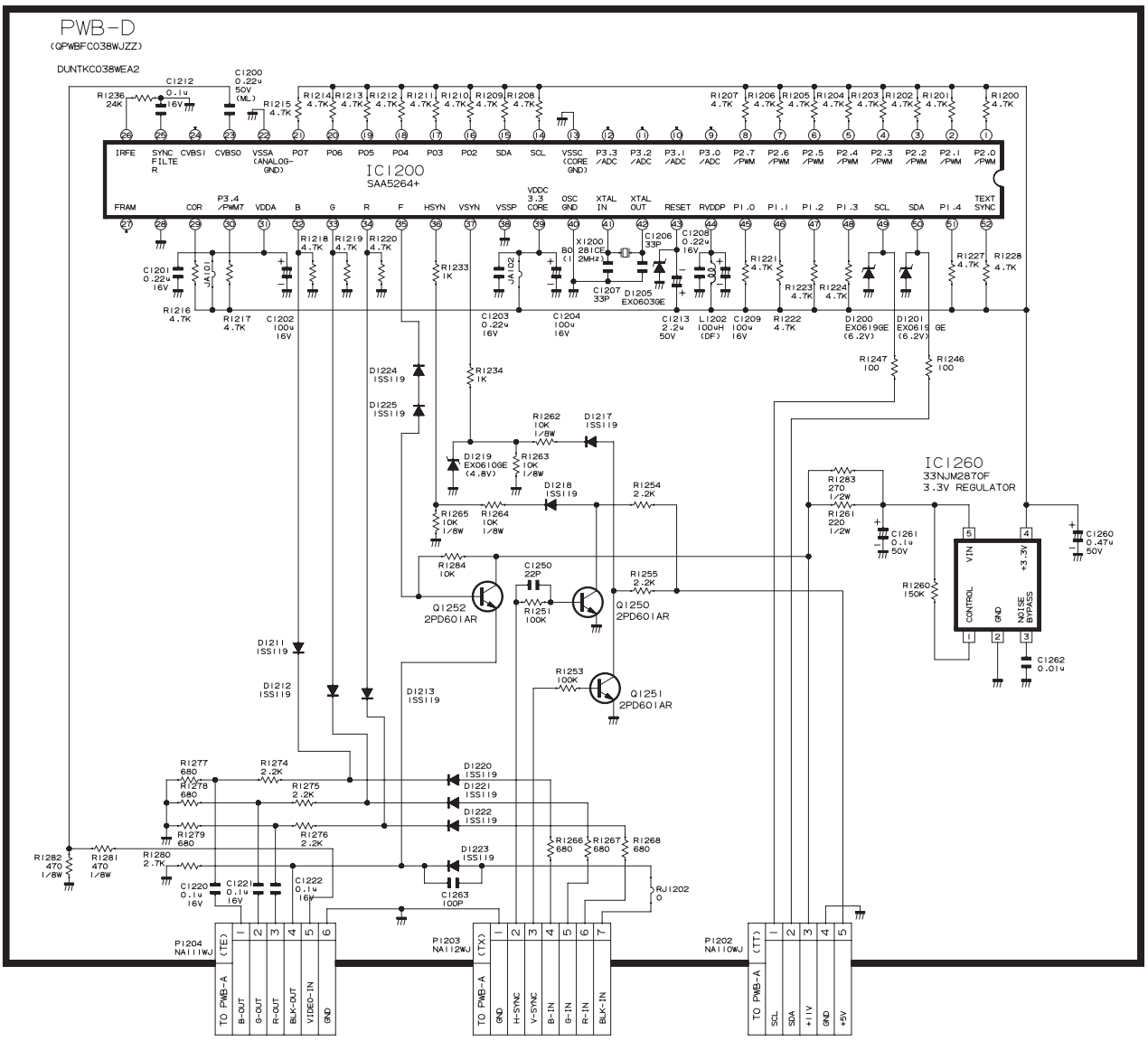
MAIN UNIT





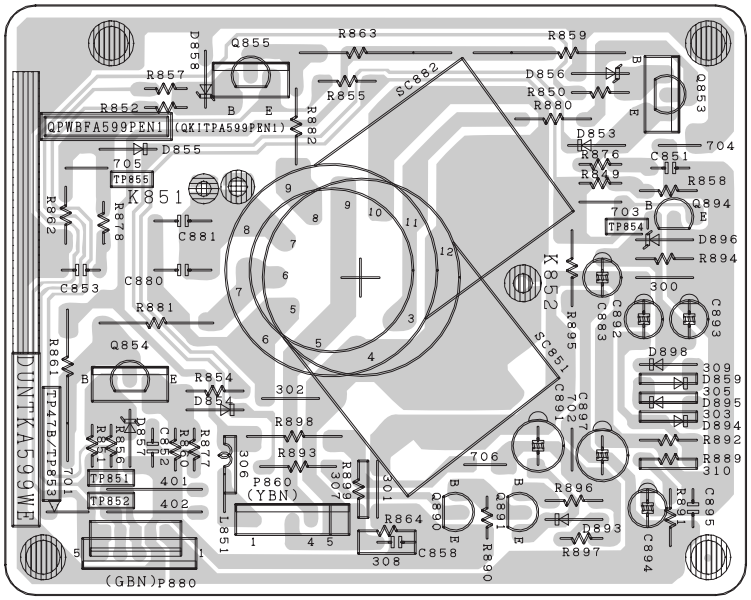
10	11	12	13	14	15	16	17	18	19

TEXT UNIT

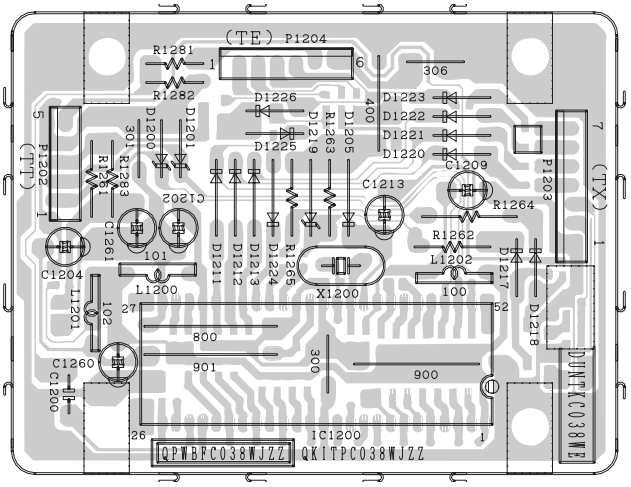

PWB-D
(QPWBFC038WJZZ)
DUNTKC038WEA2
IC1200
SAA5264+
IC1260
33NJM2870F
3.3V REGULATOR
Q1252
2PD601AR
Q1250
2PD601AR
Q1251
2PD601AR
P1204
NA111WJ
(TE)
TO PWB-A
B-OUT
G-OUT
R-OUT
BLK-OUT
VIDEO-IN
GND
P1203
NA112WJ
(TX)
TO PWB-A
GND
H-SYNC
V-SYNC
B-IN
G-IN
R-IN
BLK-IN
P1202
NA110WJ
(TT)
TO PWB-A
SCL
SDA
+11V
GND
+5V

PRINTED WIRING BOARD ASSEMBLIES

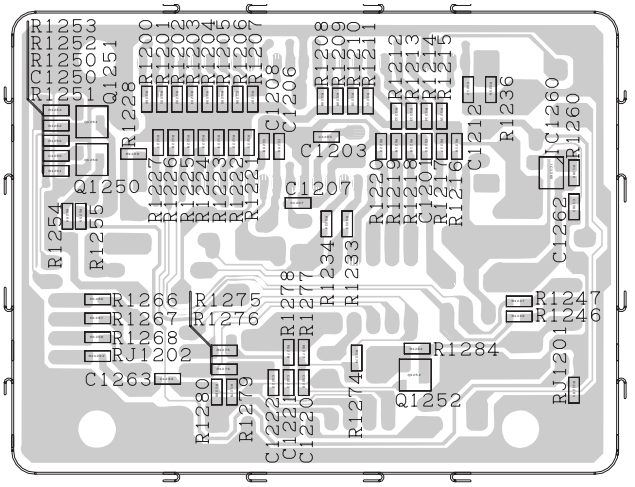
PWB-B: CRT UNIT (Component Side)



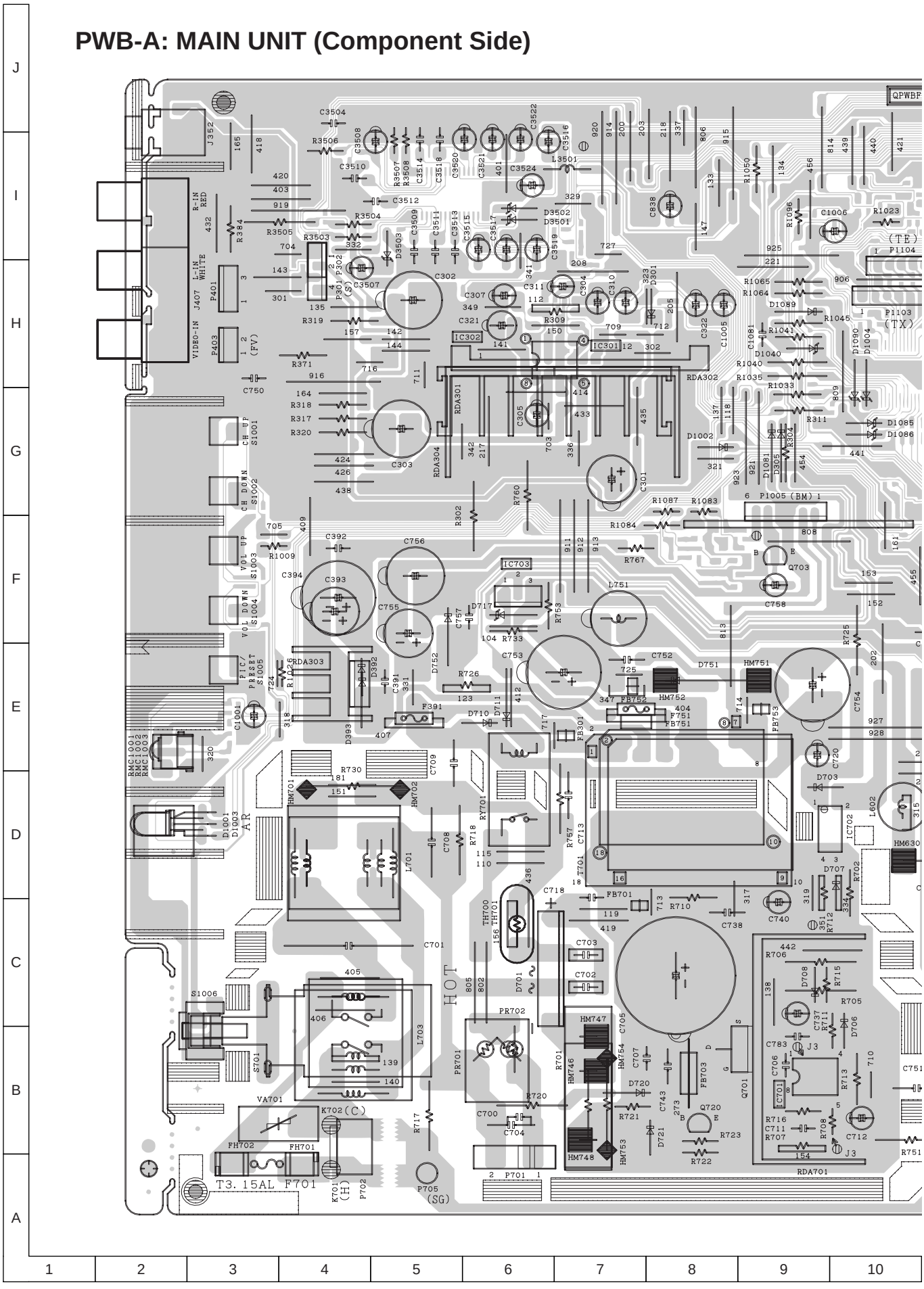
PWB-D: TEXT UNIT (Component Side)

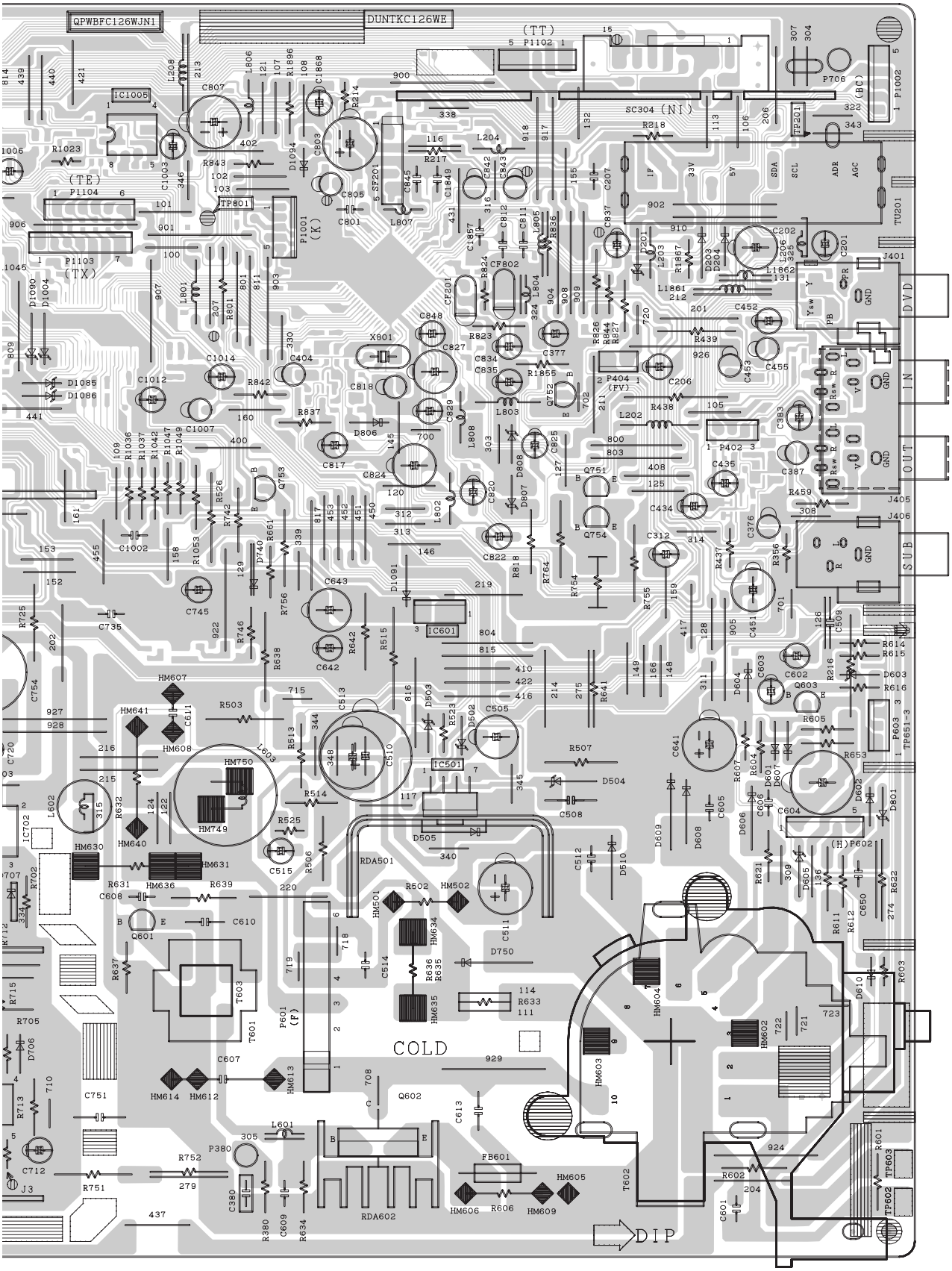


PWB-D: TEXT UNIT (Wiring Side)



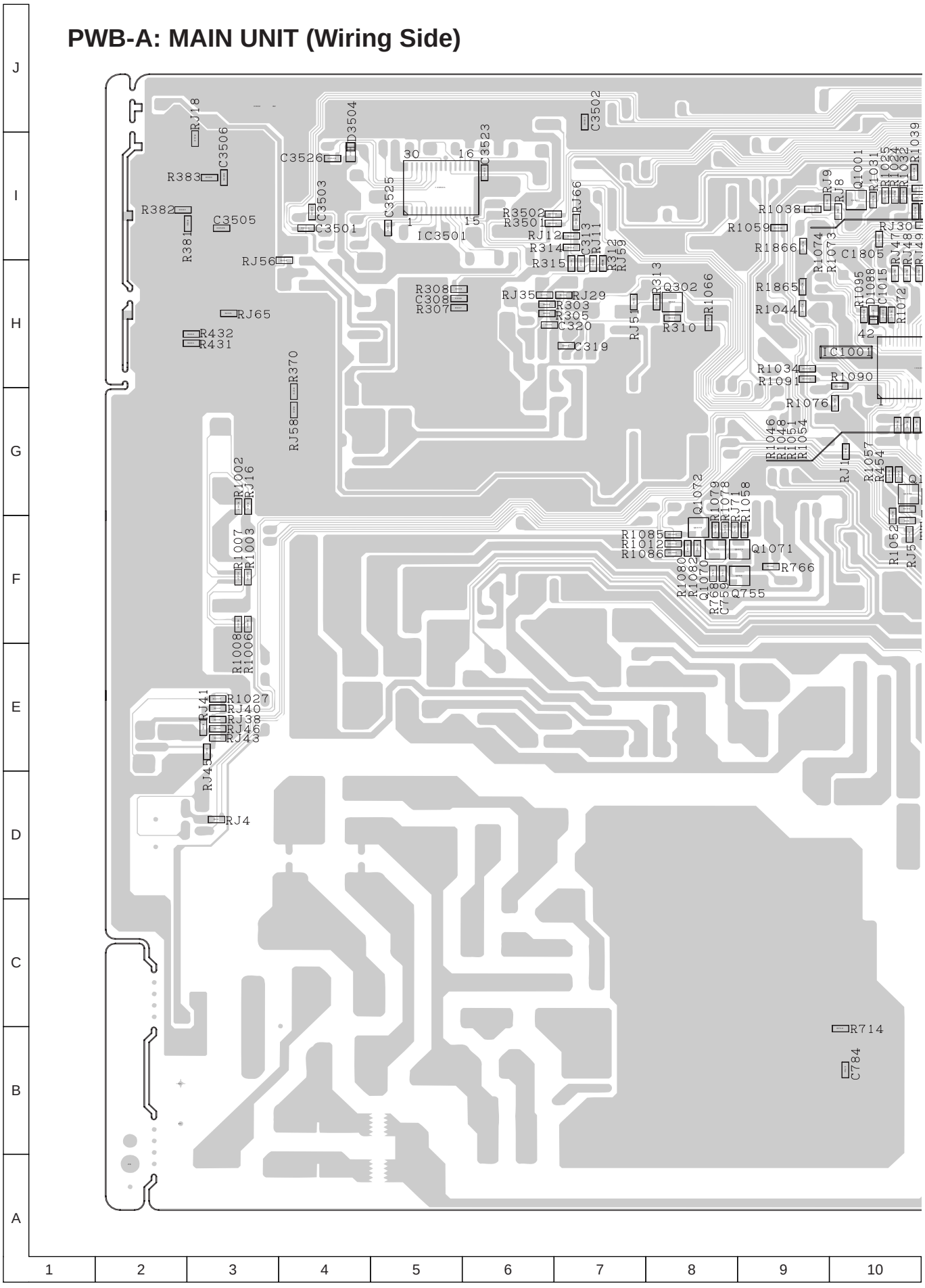
PWB-A: MAIN UNIT (Component Side)

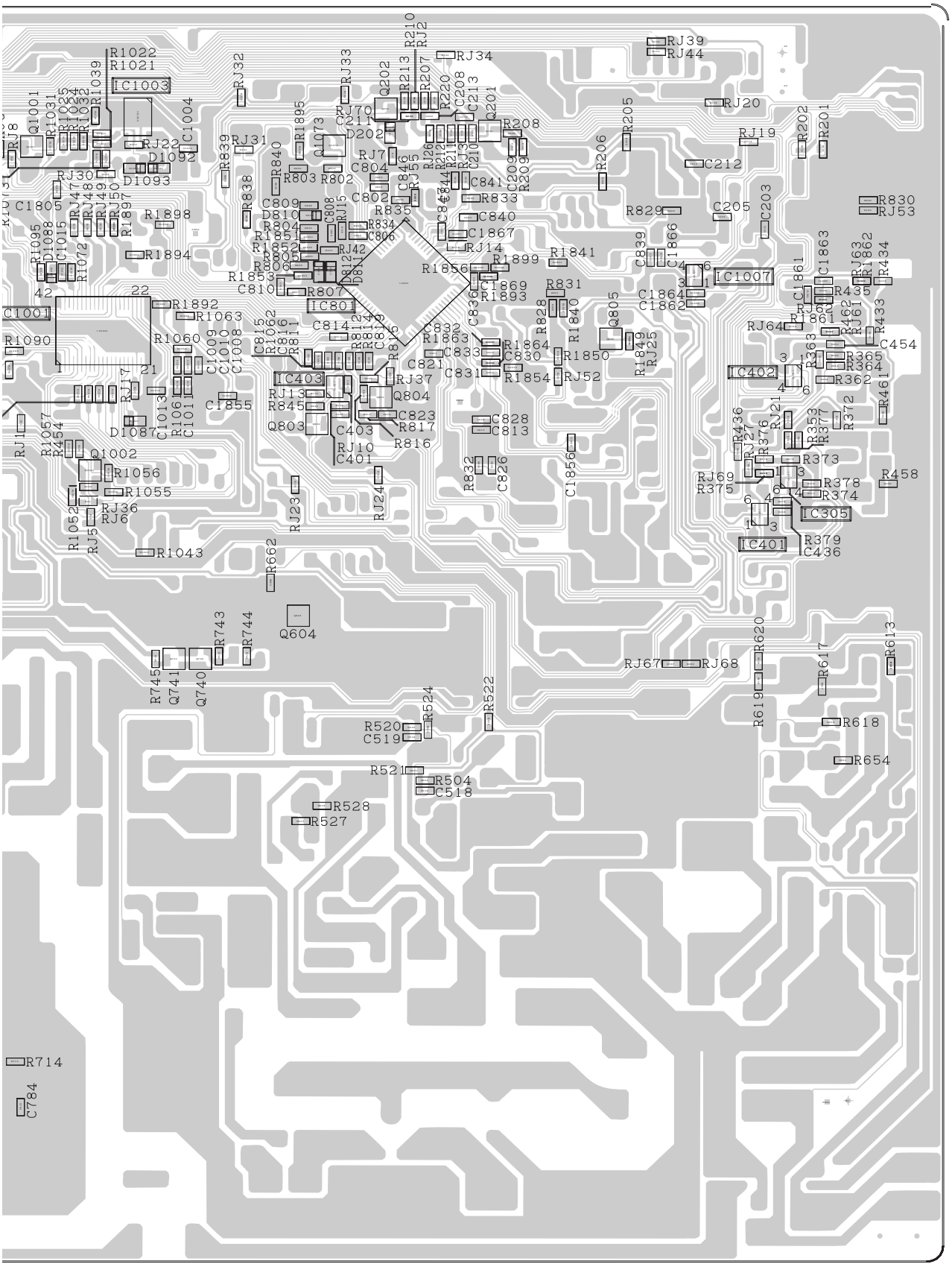




10	11	12	13	14	15	16	17	18	19

PWB-A: MAIN UNIT (Wiring Side)





10	11	12	13	14	15	16	17	18	19

REPLACEMENT PARTS LIST

PARTS REPLACEMENT

Replacement parts which have these special safety characteristics are identified in this manual; electrical components having such features are identified by "⚠" in the Replacement Parts Lists.
The use of a substitute replacement part which does not have the same safety characteristics as the factory recommended replacement parts shown in this service manual may create shock, fire or other hazards.

"HOW TO ORDER REPLACEMENT PARTS"

To have your order filled promptly and correctly, please furnish the following informations.

1. **MODEL NUMBER**
2. **REF. NO.**
3. **PART NO.**
4. **DESCRIPTION**

MARK ★ : SPARE PARTS-DELIVERY SECTION.

▲ MARK: X-RAY RELATED PARTS

Ref. No.	Part No.	★	Description	Code
PICTURE TUBE				
⚠	VB51QDX992X5E	R	Picture Tube	
⚠ L706	RCiLG0069PEZZ	R	Degaussing Coil	AR
	PMAGF3046CEZZ	R	Magnet	AF
	QEARCA012WJZZ	R	Ground-Part	AG

PRINTED WIRING BOARD ASSEMBLIES
(NOT REPLACEMENT ITEM)

PWB-A	DUNTKC126WEA1	– MAIN Unit	—
PWB-B	DUNTKA599WEC8	– CRT Unit	—
PWB-D	DUNTKC038WEA2	– TEXT Unit	—

Ref. No.	Part No.	★	Description	Code
DUNTKC126WEA1 PWB-A MAIN UNIT				
NOTE: THE PARTS HERE SHOWN ARE SUPPLIED AS AN ASSEMBLY BUT INDEPENDENTLY.				
TUNER				
⚠ TU201	VTUVT1T5ED203	R	VHF Tuner	AX
INTEGRATED CIRCUITS				
IC301	VHiAN17810A-1	R	I.C.	AL
IC305	VSiMX1C/C//-1Y	R	iMX1C	AC
IC401	VHiMM1501XN-1Y	R	MM1501XNRE	AE
IC402	VHiMM1501XN-1Y	R	MM1501XNRE	AE
IC403	VHiMM1501XN-1Y	R	MM1501XNRE	AE
⚠ IC501	VHiSTV9302A-1	R	STV9302A	AH
IC601	VHiKA7809AP-1	R	KIA7809API	AE
⚠ IC701	VHiTEA1507/-1	R	TEA1507P/N1	AL
⚠ IC702	RH-FX0008GEZZ	R	PC123FY8	AE
⚠ IC703	VHiSE130N//-1	R	SE130N	AF
IC801	VHiM61262AF1EQ	R	I.C.	AZ
IC1001	RH-iXA319WJN4	R	I.C.	AT
IC1003	VHiM24C08W6-1Y	R	M24C08-WMN6T	AH
IC1007	VSiMX1C/C//-1Y	R	iMX1C	AC
IC3501	VHiNJW1142+-1Y	R	I.C.	AP
TRANSISTORS				
Q201	VS2SC2735//1EY	R	2SC2735	AC
Q202	VS2PD601AR/-1Y	R	2PD601AR	AB
Q601	VS2SC2482//-1+	R	2SC2482	AD
⚠ Q602	VS2SD2539//1E	R	2SD2539	AP
Q603	VS2PC1815G+-1+	R	2PC1815G	AC
Q604	VS2PD601AR/-1Y	R	2PD601AR	AB
⚠ Q701	VHiMFS7KM16A1	R	I.C.	AM
Q703	VS2PC1815Y+-1+	R	2PC1815Y	AC
Q740	VS2PD601AR/-1Y	R	2PD601AR	AB
Q741	VS2PD601AR/-1Y	R	2PD601AR	AB
Q751	VS2SC2236Y/-1+	R	2SC2236Y	AD
Q752	VS2SC2236Y/-1+	R	2SC2236Y	AD
Q753	VS2PC1815G+-1+	R	2PC1815G	AC
Q754	VS2SC2236Y/-1+	R	2SC2236Y	AD
Q755	VS2PD601AR/-1Y	R	2PD601AR	AB
Q803	VS2PD601AR/-1Y	R	2PD601AR	AB
Q804	VS2PB709AR/-1Y	R	2PB709AR	AB
Q805	VS2PD601AR/-1Y	R	2PD601AR	AB
Q1001	VS2PD601AR/-1Y	R	2PD601AR	AB
Q1002	VS2PD601AR/-1Y	R	2PD601AR	AB
Q1070	VS2PD601AR/-1Y	R	2PD601AR	AB
Q1073	VS2PD601AR/-1Y	R	2PD601AR	AB
DIODES				
D201	RH-EX0676GEZZY	R	Zener Diode, 33V	AA
D202	VHD1SS356//-1Y	R	1SS356	AC
D203	VHD1SS119//-1Y	R	1SS119	AA
D204	VHD1SS119//-1Y	R	1SS119	AA
D305	VHD1SS119//-1Y	R	1SS119	AA
D392	RH-DX0445CEZZ	R	DX0445CE	AL
D502	RH-EX0652GEZZY	R	Zener Diode, 18V	AB
D503	RH-EX0612GEZZY	R	Zener Diode, 5.1V	AB
D504	RH-EX0654CEZZY	R	Zener Diode	AD
D505	RH-DX0441CEZZY	R	DX0441CE	AC
D510	RH-DX0131CEZZY	R	DX0131CE	AC
D601	VHD1SS119//-1Y	R	1SS119	AA
▲ D602	VHD1SS244//-1Y	R	1SS244	AB
▲ D603	RH-EX0662GEZZY	R	Zener Diode, 27V	AB
D604	VHD1SS119//-1Y	R	1SS119	AA
D605	RH-EX0621GEZZY	R	Zener Diode, 6.8V	AB
D606	RH-DX0131CEZZY	R	DX0131CE	AC
D607	VHD1SS119//-1Y	R	1SS119	AA
⚠ D608	RH-DX0131CEZZY	R	DX0131CE	AC
D610	VHD1SS119//-1Y	R	1SS119	AA
⚠ D701	RH-DX0476CEZZ	R	DX0476CE	AG
D703	VHD1SS119//-1Y	R	1SS119	AA
D708	VHD1SS119//-1Y	R	1SS119	AA
D710	VHD1SS119//-1Y	R	1SS119	AA
D711	VHD1SS119//-1Y	R	1SS119	AA

Ref. No.	Part No.	★	Description	Code
D717	RH-EX0650GEZZY	R	Zener Diode, 16V	AB
D750	RH-EX0647CEZZY	R	Zener Diode, 150V	AH
D751	RH-DX0229CEZZ	R	DX0229CE	AF
D752	RH-DX0302CEZZY	R	DX0302CE	AC
D801	RH-EX0613GEZZY	R	Zener Diode, 5.1V	AB
D806	VHD1SS119//-1Y	R	1SS119	AA
D807	RH-EX0625GEZZY	R	Zener Diode, 8V	AB
D808	VHD1SS119//-1Y	R	1SS119	AA
D810	RH-EX0867CEZZY	R	Zener Diode, 8.1V	AC
D811	RH-EX0867CEZZY	R	Zener Diode, 8.1V	AC
D812	RH-EX0867CEZZY	R	Zener Diode, 8.1V	AC
D1001	RH-PX0013PEZZ	R	PhotoDiode	AC
D1004	RH-EX0616GEZZY	R	Zener Diode, 5.6V	AA
D1040	RH-EX0611GEZZY	R	Zener Diode	AA
D1081	VHD1SS119//-1Y	R	1SS119	AA
D1085	RH-EX0613GEZZY	R	Zener Diode, 5.1V	AB
D1086	RH-EX0613GEZZY	R	Zener Diode, 5.1V	AB
D1087	RH-EX1393CEZZY	R	Zener Diode, 5.1V	AB
D1088	RH-EX1393CEZZY	R	Zener Diode, 5.1V	AB
D1089	RH-EX0613GEZZY	R	Zener Diode, 5.1V	AB
D1090	RH-EX0616GEZZY	R	Zener Diode, 5.6V	AA
D1091	VHD1SS119//-1Y	R	1SS119	AA
D1092	RH-EX1393CEZZY	R	Zener Diode, 5.1V	AB
D1093	RH-EX1393CEZZY	R	Zener Diode, 5.1V	AB
D1094	VHD1SS119//-1Y	R	1SS119	AA
D3501	RH-EX0619GEZZY	R	Zener Diode	AA
D3502	RH-EX0619GEZZY	R	Zener Diode	AA
D3503	RH-EX0630GEZZY	R	Zener Diode	AA
D3504	RH-EX1399CEZZY	R	Zener Diode, 9.1V	AB
⚠ VA701	RH-VX0073CEZZ	R	Varistor	AD
PACKAGED CIRCUITS				
PR701	RMPTP0001PEZZ	R	Packaged Circuit	AN
X801	RCRSAA019WJZZ	R	Crystal	AF
FILTER				
SF201	RFiLC0037PEZZ	R	Filter	AP
COILS				
L202	VP-CF270K0000Y	R	Peaking, 27µH	AB
L203	VP-DF270K0000Y	R	Peaking, 27µH	AB
L204	VP-XF1R2K0000Y	R	Peaking, 1.2µH	AB
L602	RCiLP0223CEZZ	R	Coil	AE
L603	RCiLZA006WJZZ	R	Coil	AH
⚠ L701	RCiLF0086PEZZ	R	Coil	AH
L751	RCiLP0179CEZZ+	R	Coil	AD
L801	VP-CF220K0000Y	R	Peaking, 22µH	AB
L802	VP-DF100K0000Y	R	Peaking, 10µH	AB
L803	VP-DF100K0000Y	R	Peaking, 10µH	AB
L806	VP-DF100K0000Y	R	Peaking, 10µH	AB
L808	VP-XF330K0000Y	R	Peaking, 33µH	AB
L3501	VP-XF100K0000Y	R	Peaking, 10µH	AB
TRANSFORMERS				
⚠ T601	RTRNZ0026PEZZ	R	Transformer	AH
▲⚠ T602	RTRNFA012WJZZ	R	H-Volt Transformer	BB
⚠ T701	RTRNWA086WJZZ	R	Transformer	
CAPACITORS				
C201	VCEA0A1CW476M+R	R	47 16V Electrolytic	AB
C202	VCEA0A0JW108M+	R	1000 6.3V Electrolytic	AC
C203	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA
C205	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA
C206	VCEA0A1HW106M+R	R	10 50V Electrolytic	AB
C207	VCKYPA1HB103K+	R	0.01 50V Ceramic	AA
C208	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA
C209	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA
C210	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA
C213	VCKYCY1HB102KY	R	1000p 50V Ceramic	AA
C301	VCEA0A1VW477M+R	R	470 35V Electrolytic	AB
C302	VCEA0A1VW108M+R	R	1000 35V Electrolytic	AD
C303	VCEA0A1VW108M+R	R	1000 35V Electrolytic	AD
C304	VCEA0A1CW106M+R	R	10 16V Electrolytic	AB
C308	VCKYCY1HB122KY	R	1200p 50V Ceramic	AA
C312	VCE9GA1HW474M	R	0.47 50V Electrolytic	AB

Ref. No.	Part No.	★	Description	Code
C313	VCKYCY1HB122KY	R	1200p 50V Ceramic	AA
C321	VCEA0A1VW107M+R	R	100 35V Electrolytic	AC
C322	VCEA0A1HW335M+R	R	3.3 50V Electrolytic	AB
C376	VCEA9M1CW107M+R	R	100 16V Electrolytic	AB
C377	VCEA0A1CW107M+R	R	100 16V Electrolytic	AC
C383	VCEA0A1CW106M+R	R	10 16V Electrolytic	AB
C387	VCEA9M1CW106M+R	R	10 16V Electrolytic	AB
C391	VCKYPA1HB102K+	R	1000p 50V Ceramic	AA
C392	VCQYTA1HM103J+	R	0.01 50V Mylar	AB
C394	VCEA0H1VW228M	R	2200 35V Electrolytic	AH
C401	VCKYCY1HB103KY	R	0.01 50V Ceramic	AA
C403	VCKYCY1EF104ZY	R	0.1 25V Ceramic	AA
C404	VCEA9M1CW106M+R	R	10 16V Electrolytic	AB
C434	VCEA0A1CW106M+R	R	10 16V Electrolytic	AB
C435	VCE9GA1CW106M+R	R	10 16V Electrolytic	AB
C436	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA
C451	VCEA0A1CW477M+R	R	470 16V Electrolytic	AC
C452	VCEA0A1CW106M+R	R	10 16V Electrolytic	AB
C453	VCEA9M1CW106M+R	R	10 16V Electrolytic	AB
C454	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA
C455	VCEA9M1CW106M+R	R	10 16V Electrolytic	AB
C505	VCEA0A1HW107M+R	R	100 50V Electrolytic	AB
C508	VCFYAA2AA224J+	R	0.22 100V Metllzed polyester	AD
C509	VCKYD41CY103NY	R	0.01 16V Ceramic	AB
C511	VCEA0A1VW477M	R	470 35V Electrolytic	AB
C512	VCKYPA2HB102K+	R	1000p 500V Ceramic	AA
C513	VCEA0H1VW478M	R	4700 35V Electrolytic	AL
C514	VCFYSA1JB273J+	R	0.027 63V Metllzed polyester	AC
C515	VCFYFA1HA224J+	R	0.22 50V Mylar	AA
C518	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA
C519	VCKYCY1HB102KY	R	1000p 50V Ceramic	AA
C601	VCQYTA1HM563J+	R	0.056 50V Mylar	AB
C602	VCEA0A1HW475M+R	R	4.7 50V Electrolytic	AB
C603	VCEA0A1HW105M+R	R	1 50V Electrolytic	AB
C604	VCEAGA2EW336M	R	33 250V Electrolytic	AD
C605	VCKYPA2HB102K+	R	1000p 500V Ceramic	AA
C606	VCKYPA2HB102K+	R	1000p 500V Ceramic	AA
▲⚠ C607	VCFPVC3ZA902H	R	9000p 1500V MetalIzed Polypro Film	AD
C608	VCKYPA2HB561K+	R	560p 500V Ceramic	AA
C610	VCFYSB2EB823J	R	0.082 250V Metllzed polyester	AD
C611	VCFPVC2DB244J	R	0.24 200V MetalIzed Polypro Film	AD
C641	VCEA0A1EW108M	R	1000 25V Electrolytic	AD
C642	VCEA0A1EW476M+R	R	47 25V Electrolytic	AB
C643	VCEA0A1CW477M+R	R	470 16V Electrolytic	AC
C650	VCKYPA2HB101K+	R	100p 500V Ceramic	AB
⚠ C701	RC-FZ038SCEZZ	R	0.47 MetalIzed Polypro Film	AE
C702	RC-KZ0029CEZZ+	R	0.01 250V Ceramic	AC
C703	RC-KZ0029CEZZ+	R	0.01 250V Ceramic	AC
C704	RC-KZ0029CEZZ	R	0.01 250V Ceramic	AC
C705	RC-EZA097WJZZ	R	220p 400V Electrolytic	AM
C706	VCQYTA1HM103J+	R	0.01 50V Mylar	AB
⚠ C708	RC-FZ031SCEZZ	R	0.1	AD
⚠ C711	VCFYFA1HA334J+	R	0.33 50V Metllzed polyester	AB
C713	RC-KZ0107GEZZ	R	3900p 250V Ceramic	AE
C718	VCKYPA2HB472K+	R	4700p 500V Ceramic	AB
C735	VCQYTA1HM104J+	R	0.1 50V Mylar	AB
C737	VCEA0A1EW226M+R	R	22 25V Electrolytic	AB
C738	RC-KZ0040CEZZ	R	820p 2kV Ceramic	AD
C743	VCKYPH3DB561K	R	560p 2000V Ceramic	AC
C752	VCKYPH3DB561K	R	560p 2000V Ceramic	AC
C753	RC-EZ0776CEZZ	R	100 160V Electrolytic	AF
C754	RC-EZA069WJZZ	R	33 160V Electrolytic	AE
C755	VCEA0A1EW108M	R	1000 25V Electrolytic	AD
C756	VCEA0A1EW228M	R	2200 25V Electrolytic	AF
C758	VCEA0A1HW225M+R	R	2.2 50V Electrolytic	AB
C759	VCKYCY1HB102KY	R	1000p 50V Ceramic	AA
C784	VCKYCY1HB103KY	R	0.01 50V Ceramic	AA
C801	VCFYFA1HA105J+	R	1 50V Mylar	AE
C802	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA
C803	VCEA0A1CW108M+R	R	1000 16V Electrolytic	AD
C804	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA
C805	VCEA9M1HW105M+R	R	1 50V Electrolytic	AB
C806	VCKYCY1HF103ZY	R	0.01 50V Ceramic	AA

Ref. No.	Part No.	★			Description	Code
C807	VCEA0A1CW108M+R		1000	16V	Electrolytic	AD
C808	VCKYCY1HF103ZY	R	0.01	50V	Ceramic	AA
C809	VCKYCY1HF103ZY	R	0.01	50V	Ceramic	AA
C810	VCKYCY1HF103ZY	R	0.01	50V	Ceramic	AA
C811	VCFYFA1HA224J+	R	0.22	50V	Mylar	AB
C812	VCFYFA1HA224J+	R	0.22	50V	Mylar	AB
C813	VCCCCY1HH181JY	R	180p	50V	Ceramic	AA
C814	VCKYCY1HF103ZY	R	0.01	50V	Ceramic	AA
C815	VCKYCY1HF103ZY	R	0.01	50V	Ceramic	AA
C817	VCEA0A1AW107M+R		100	10V	Electrolytic	AB
C818	VCEA9M1HW475M+R		4.7	50V	Electrolytic	AB
C819	VCCCCY1HH121JY	R	120p	50V	Ceramic	AA
C820	VCEA0A1HW474M+R		0.47	50V	Electrolytic	AB
C821	VCKYCY1HF153ZY	R	0.015	50V	Ceramic	AA
C822	VCE9GA1HW105M+R		1	50V	Electrolytic	AB
C823	VCKYCY1HF103ZY	R	0.01	50V	Ceramic	AA
C824	VCEA0A1CW337M+R		330	16V	Electrolytic	AC
C825	VCE9GA1HW105M+R		1	50V	Electrolytic	AB
C826	VCKYCY1HF103ZY	R	0.01	50V	Ceramic	AA
C827	VCEA0A1CW477M+R		470	16V	Electrolytic	AC
C828	VCKYCY1HF103ZY	R	0.01	50V	Ceramic	AA
C829	VCEA0A1CW476M+R		47	16V	Electrolytic	AB
C831	VCKYCY1EF104ZY	R	0.1	25V	Ceramic	AA
C833	VCKYCY1EF104ZY	R	0.1	25V	Ceramic	AA
C834	VCEA0A1CW107M+R		100	16V	Electrolytic	AC
C835	VCEA0A1CW106M+R		10	16V	Electrolytic	AB
C837	VCEA0A1HW105M+R		1	50V	Electrolytic	AB
C839	VCKYCY1HB222KY	R	2200p	50V	Ceramic	AA
C840	VCKYCY1EF104ZY	R	0.1	25V	Ceramic	AA
C841	VCCCCY1HH220JY	R	22p	50V	Ceramic	AA
C842	VCEA9M1HW474M+R		0.47	50V	Electrolytic	AB
C843	VCEA9M1HW105M+R		1	50V	Electrolytic	AB
C844	VCKYCY1CF104ZY	R	0.1	16V	Ceramic	AA
C845	VCFYFA1HA224J+	R	0.22	50V	Mylar	AB
C847	VCCCCY1HH220JY	R	22p	50V	Ceramic	AA
C1001	VCEA0A0JW107M+	R	100	6.3V	Electrolytic	AB
C1002	VCQYTA1HM103J+	R	0.01	50V	Mylar	AB
C1003	VCEA0A1CW106M+R		10	16V	Electrolytic	AB
C1004	VCKYCY1CF474ZY	R	0.47	16V	Ceramic	AB
C1006	VCEA0A1HW225M+R		2.2	50V	Electrolytic	AB
C1007	VCEA9M1CW107M+R		100	16V	Electrolytic	AB
C1008	VCKYCY1HF103ZY	R	0.01	50V	Ceramic	AA
C1009	VCKYCY1HF103ZY	R	0.01	50V	Ceramic	AA
C1011	VCKYCY1HB221KY	R	220p	50V	Ceramic	AA
C1012	VCEA0A1HW105M+R		1	50V	Electrolytic	AB
C1014	VCEA0A1HW475M+R		4.7	50V	Electrolytic	AB
C1015	VCCCCY1HH101JY	R	100p	50V	Ceramic	AA
C1081	VCQYTA1HM104J+	R	0.1	50V	Mylar	AB
C1805	VCCCCY1HH101JY	R	100p	50V	Ceramic	AA
C1856	VCKYCY1HB102KY	R	1000p	50V	Ceramic	AA
C1857	VCFYFA1HA105J+	R	1	50V	Mylar	AE
C1866	VCKYCY1HB182KY	R	1800p	50V	Ceramic	AA
C1867	VCCCCY1HH150JY	R	15p	50V	Ceramic	AA
C1868	VCEA0A0JW107M+	R	100	6.3V	Electrolytic	AB
C1869	VCKYCY1HF223ZY	R	0.022	50V	Ceramic	AB
C3501	VCKYCY1CF224ZY	R	0.22	16V	Ceramic	AB
C3502	VCKYCY1CF224ZY	R	0.22	16V	Ceramic	AB
C3503	VCKYCY1CF224ZY	R	0.22	16V	Ceramic	AB
C3504	VCFYFA1HA224JY	R	0.22	50V	Metllzed polyester	
C3505	VCKYCY1CF224ZY	R	0.22	16V	Ceramic	AB
C3506	VCKYCY1CF224ZY	R	0.22	16V	Ceramic	AB
C3507	VCEA0A1HW475M+R		4.7	50V	Electrolytic	AB
C3508	VCEA0A1HW475M+R		4.7	50V	Electrolytic	AB
C3509	VCQYTA1HM223J+	R	0.022	50V	Mylar	AB
C3510	VCQYTA1HM223J+	R	0.022	50V	Mylar	AB
C3511	VCQYTA1HM222J+	R	2200p	50V	Mylar	AA
C3512	VCQYTA1HM222J+	R	2200p	50V	Mylar	AA
C3513	VCFYFA1HA224J+	R	0.22	50V	Mylar	AB
C3514	VCFYFA1HA224J+	R	0.22	50V	Mylar	AB
C3515	VCEA0A1HW105M+R		1	50V	Electrolytic	AB
C3516	VCEA0A1HW105M+R		1	50V	Electrolytic	AB
C3517	VCEA0A1HW105M+R		1	50V	Electrolytic	AB
C3518	VCFYFA1HA334J+	R	0.33	50V	Mylar	AB
C3519	VCEA0A1HW105M+R		1	50V	Electrolytic	AB
C3520	VCEA0A1HW105M+R		1	50V	Electrolytic	AB
C3521	VCEA0A1HW105M+R		1	50V	Electrolytic	AB
C3522	VCEA0A1HW105M+R		1	50V	Electrolytic	AB
C3523	VCKYCY1CF104ZY	R	0.1	16V	Ceramic	AA
C3524	VCEA0A1CW476M+R		47	16V	Electrolytic	AB
C3525	VCKYCY1HF103ZY	R	0.01	50V	Ceramic	AA
C3526	VCKYCY1HF103ZY	R	0.01	50V	Ceramic	AA

RESISTORS

Ref. No.	Part No.	★			Description	Code
RJ1	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ4	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ6	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ8	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ9	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ10	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ11	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ12	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ14	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ15	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ17	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ19	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ20	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ21	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ22	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ23	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ24	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ27	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ28	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ29	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ30	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ31	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ32	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ33	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ34	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ35	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ37	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ38	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ39	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ40	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ44	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ45	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ51	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ53	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ55	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ57	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ62	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ63	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ70	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
R201	VRS-CY1JF101JY	R	100	1/16W	Metal Oxide	AA
R202	VRS-CY1JF101JY	R	100	1/16W	Metal Oxide	AA
R205	VRS-CY1JF680JY	R	68	1/16W	Metal Oxide	AA
R206	VRS-CY1JF122JY	R	1.2k	1/16W	Metal Oxide	AA
R207	VRS-CY1JF221JY	R	220	1/16W	Metal Oxide	AA
R208	VRS-CY1JF681JY	R	680	1/16W	Metal Oxide	AA
R209	VRS-CY1JF392JY	R	3.9k	1/16W	Metal Oxide	AA
R210	VRS-CY1JF392JY	R	3.9k	1/16W	Metal Oxide	AA
R211	VRS-CY1JF682JY	R	6.8k	1/16W	Metal Oxide	AA
R212	VRS-CY1JF222JY	R	2.2k	1/16W	Metal Oxide	AA
R213	VRS-CY1JF473JY	R	47k	1/16W	Metal Oxide	AA
R214	VRD-RA2BE473JY	R	47k	1/8W	Carbon	AA
R216	VRS-VV3LB333J	R	33k	3W	Metal Oxide	AB
R220	VRS-CY1JF221JY	R	220	1/16W	Metal Oxide	AA
R302	VRN-VV3DBR10J	R	0.1	2W	Metal Film	AB
R305	VRS-CY1JF274JY	R	270k	1/16W	Metal Oxide	AA
R307	VRS-CY1JF123JY	R	12k	1/16W	Metal Oxide	AA
R308	VRS-CY1JF223JY	R	22k	1/16W	Metal Oxide	AA
R309	VRD-RA2BE123JY	R	12k	1/8W	Carbon	AA
R310	VRS-CY1JF473JY	R	47k	1/16W	Metal Oxide	AA
R311	VRD-RA2BE272JY	R	2.7k	1/8W	Carbon	AA
R314	VRS-CY1JF223JY	R	22k	1/16W	Metal Oxide	AA
R315	VRS-CY1JF123JY	R	12k	1/16W	Metal Oxide	AA
R317	VRD-RA2BE561JY	R	560	1/8W	Carbon	AA
R318	VRD-RA2BE561JY	R	560	1/8W	Carbon	AA
R353	VRS-CY1JF102JY	R	1k	1/16W	Metal Oxide	AA
R356	VRD-RA2BE102JY	R	1k	1/8W	Carbon	AA
R362	VRS-CY1JF332JY	R	3.3k	1/16W	Metal Oxide	AA
R363	VRS-CY1JF564JY	R	560k	1/16W	Metal Oxide	AA
R364	VRS-CY1JF332JY	R	3.3k	1/16W	Metal Oxide	AA

Ref. No.	Part No.	★	Description	Code
R365	VRS-CY1JF564JY	R	560k 1/16W Metal Oxide	AA
R370	VRS-CY1JF000JY	R	0 1/16W Metal Oxide	AA
R372	VRS-CY1JF104JY	R	100k 1/16W Metal Oxide	AA
R373	VRS-CY1JF103JY	R	10k 1/16W Metal Oxide	AA
R374	VRS-CY1JF104JY	R	100k 1/16W Metal Oxide	AA
R375	VRS-CY1JF103JY	R	10k 1/16W Metal Oxide	AA
R376	VRS-CY1JF103JY	R	10k 1/16W Metal Oxide	AA
R377	VRS-CY1JF101JY	R	100 1/16W Metal Oxide	AA
R378	VRS-CY1JF101JY	R	100 1/16W Metal Oxide	AA
R379	VRS-CY1JF103JY	R	10k 1/16W Metal Oxide	AA
R381	VRS-CY1JF564JY	R	560k 1/16W Metal Oxide	AA
R382	VRS-CY1JF332JY	R	3.3k 1/16W Metal Oxide	AA
R383	VRS-CY1JF564JY	R	560k 1/16W Metal Oxide	AA
R384	VRD-RA2BE332JY	R	3.3k 1/8W Carbon	AA
R431	VRS-CY1JF101JY	R	100 1/16W Metal Oxide	AA
R432	VRS-CY1JF750JY	R	75 1/16W Metal Oxide	AA
R433	VRS-CY1JF750JY	R	75 1/16W Metal Oxide	AA
R434	VRS-CY1JF750JY	R	75 1/16W Metal Oxide	AA
R435	VRS-CY1JF750JY	R	75 1/16W Metal Oxide	AA
R436	VRS-CY1JF101JY	R	100 1/16W Metal Oxide	AA
R437	VRD-RA2BE101JY	R	100 1/8W Carbon	AA
R438	VRD-RA2BE101JY	R	100 1/8W Carbon	AA
R439	VRD-RA2BE101JY	R	100 1/8W Carbon	AA
R458	VRS-CY1JF103JY	R	10k 1/16W Metal Oxide	AA
R459	VRD-RA2EE750JY	R	75 1/4W Carbon	AA
R461	VRS-CY1JF750JY	R	75 1/16W Metal Oxide	AA
R462	VRS-CY1JF101JY	R	100 1/16W Metal Oxide	AA
R502	VRS-VV3AB102J	R	1k 1W Metal Oxide	AA
R503	VRN-VV3DB1R2J	R	1.2 2W Metal Film	AA
R504	VRS-CY1JF222JY	R	2.2k 1/16W Metal Oxide	AA
R506	VRS-VV3AB331J	R	330 1W Metal Oxide	AA
R507	VRD-RM2HD1R0JY	R	1 1/2W Carbon	AA
R513	VRD-RM2HD333JY	R	33k 1/2W Carbon	AB
R514	VRD-RM2HD682JY	R	6.8k 1/2W Carbon	AA
R520	VRS-CY1JF123JY	R	12k 1/16W Metal Oxide	AA
R522	VRS-CY1JF101JY	R	100 1/16W Metal Oxide	AA
R523	VRD-RA2BE101JY	R	100 1/8W Carbon	AA
R524	VRS-CY1JF103JY	R	10k 1/16W Metal Oxide	AA
R525	VRD-RA2BE123JY	R	12k 1/8W Carbon	AA
R526	VRD-RA2BE101JY	R	100 1/8W Carbon	AA
R528	VRS-CY1JF683JY	R	68k 1/16W Metal Oxide	AA
⚠ R601	VRS-SV2HC102J	R	1k 1/2W Metal Oxide	AA
R602	VRD-RA2BE393JY	R	39k 1/8W Carbon	AA
R603	VRD-RA2BE273JY	R	47k 1/8W Carbon	AA
R604	VRD-RA2BE473JY	R	47k 1/8W Carbon	AA
R605	VRD-RM2HD104JY	R	100k 1/2W Carbon	AA
R606	VRN-VV3LBR27J	R	0.27 3W Metal Film	AC
R607	VRD-RA2BE103JY	R	10k 1/8W Carbon	AA
⚠ R611	VRN-VV3ABR27J	R	0.27 1W Metal Film	AA
⚠ R612	VRD-RM2HD270JY	R	27 1/2W Carbon	AA
▲ R614	VRD-RA2BE154JY	R	150k 1/8W Carbon	AA
R615	VRD-RA2BE102JY	R	1k 1/8W Carbon	AA
R616	VRD-RA2BE102JY	R	1k 1/8W Carbon	AA
R617	VRS-CY1JF123JY	R	12k 1/16W Metal Oxide	AA
R618	VRS-CY1JF103JY	R	10k 1/16W Metal Oxide	AA
R619	VRS-CY1JF103JY	R	10k 1/16W Metal Oxide	AA
R620	VRS-CY1JF333JY	R	33k 1/16W Metal Oxide	AA
R621	VRN-SV2HC4R7JY	R	4.7 1/2W Metal Film	AB
R622	VRS-VV3DB682J	R	6.8k 2W Metal Oxide	AA
R631	VRS-KT3LB391J	R	390 3W Metal Oxide	AD
R632	VRS-VV3LB122J	R	1.2k 3W Metal Oxide	AB
⚠ R633	VRS-KA3NG3R3K	R	3.3 7W Metal Oxide	AD
R636	VRS-KA3HG912J	R	9.1k 5W Metal Oxide	AD
R637	VRD-RA2BE331JY	R	330 1/8W Carbon	AA
R638	VRD-RA2BE331JY	R	330 1/8W Carbon	AA
R639	VRD-RM2HD562JY	R	5.6k 1/2W Carbon	AA
R653	VRD-RM2HD184JY	R	180k 1/2W Carbon	AA
R654	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA
R661	VRD-RA2BE102JY	R	1k 1/8W Carbon	AA
R662	VRS-CY1JF103JY	R	10k 1/16W Metal Oxide	AA
R701	VRW-KQ3NC1R5K	R	1.5 7W Cement	AE
R702	VRD-RM2HD100JY	R	10 1/2W Carbon	AA
R705	VRN-VV3DBR22J	R	0.22 2W Metal Film	AB
R706	VRN-VV3DBR22J	R	0.22 2W Metal Film	AB
R707	VRD-RM2HD270JY	R	27 1/2W Carbon	AA
R708	VRD-RA2BE102JY	R	1k 1/8W Carbon	AA
R710	VRS-SV2HC103J	R	10k 1/2W Metal Oxide	AA
R711	VRD-RA2BE394JY	R	390k 1/8W Carbon	AA
R713	VRD-RM2HD122JY	R	1.2k 1/2W Carbon	AA
R715	VRD-RA2BE150JY	R	15 1/8W Carbon	AA
R716	VRD-RA2BE223JY	R	22k 1/8W Carbon	AA
R718	VRC-UA2HG275KY	R	2.7M 1/2W Solid	AC
R725	VRD-RM2HD821JY	R	820 1/2W Carbon	AA
R726	VRN-SV2HCR47J	R	0.47 1/2W Metal Film	AA
R730	VRW-GA4AB1R5K	R	1.5 10W Cement	AE
R742	VRD-RA2BE183JY	R	18k 1/8W Carbon	AA
R743	VRS-CY1JF332JY	R	3.3k 1/16W Metal Oxide	AA
R744	VRS-CY1JF332JY	R	3.3k 1/16W Metal Oxide	AA
R745	VRS-CY1JF682JY	R	6.8k 1/16W Metal Oxide	AA
R746	VRD-RA2BE223JY	R	22k 1/8W Carbon	AA
R751	VRC-UA2HG825KY	R	8.2M 1/2W Solid	AA
⚠ R752	VRC-UA2HG825KY	R	8.2M 1/2W Solid	AA
R753	VRD-RM2HD124JY	R	120k 1/2W Carbon	AA
R754	VRS-KA3NG220J	R	22 7W Metal Oxide	AD
R755	VRS-VV3DB150J	R	15 2W Metal Oxide	AA
R756	VRS-VV3DB101J	R	100 2W Metal Oxide	AA
R760	VRD-RA2BE123JY	R	12k 1/8W Carbon	AA
R766	VRS-CY1JF333JY	R	33k 1/16W Metal Oxide	AA
R768	VRS-CY1JF332JY	R	3.3k 1/16W Metal Oxide	AA
R801	VRD-RA2BE273JY	R	27k 1/8W Carbon	AA
R802	VRS-CY1JF682JY	R	6.8k 1/16W Metal Oxide	AA
R803	VRS-CY1JF103JY	R	10k 1/16W Metal Oxide	AA
R804	VRS-CY1JF222JY	R	2.2k 1/16W Metal Oxide	AA
R805	VRS-CY1JF222JY	R	2.2k 1/16W Metal Oxide	AA
R806	VRS-CY1JF222JY	R	2.2k 1/16W Metal Oxide	AA
R807	VRS-CY1JF222JY	R	2.2k 1/16W Metal Oxide	AA
R811	VRS-CY1JF101JY	R	100 1/16W Metal Oxide	AA
R812	VRS-CY1JF101JY	R	100 1/16W Metal Oxide	AA
R814	VRS-CY1JF473JY	R	47k 1/16W Metal Oxide	AA
R815	VRS-CY1JF473JY	R	47k 1/16W Metal Oxide	AA
R816	VRS-CY1JF223JY	R	22k 1/16W Metal Oxide	AA
R817	VRS-CY1JF473JY	R	47k 1/16W Metal Oxide	AA
R818	VRS-VV3AB101J	R	100 1W Metal Oxide	AA
R823	VRD-RA2BE101JY	R	100 1/8W Carbon	AA
R824	VRD-RA2BE101JY	R	100 1/8W Carbon	AA
R826	VRD-RA2BE101JY	R	100 1/8W Carbon	AA
R827	VRD-RA2BE681JY	R	680 1/8W Carbon	AA
R829	VRS-CY1JF472JY	R	4.7k 1/16W Metal Oxide	AA
R830	VRS-CY1JF393JY	R	39k 1/16W Metal Oxide	AA
R831	VRS-CY1JF331JY	R	330 1/16W Metal Oxide	AA
R832	VRS-CY1JF822JY	R	8.2k 1/16W Metal Oxide	AA
R833	VRS-CY1JF220JY	R	22 1/16W Metal Oxide	AA
R835	VRS-CY1JF102JY	R	1k 1/16W Metal Oxide	AA
R836	VRD-RA2BE470JY	R	47 1/8W Carbon	AA
R837	VRD-RM2HD151JY	R	150 1/2W Carbon	AA
R838	VRS-CY1JF105JY	R	1M 1/16W Metal Oxide	AA
R839	VRS-CY1JF101JY	R	100 1/16W Metal Oxide	AA
R840	VRS-CY1JF124JY	R	120k 1/16W Metal Oxide	AA
R843	VRD-RA2BE103JY	R	10k 1/8W Carbon	AA
R845	VRS-CY1JF101JY	R	100 1/16W Metal Oxide	AA
R1002	VRS-CY1JF183JY	R	18k 1/16W Metal Oxide	AA
R1003	VRS-CY1JF822JY	R	8.2k 1/16W Metal Oxide	AA
R1006	VRS-CY1JF822JY	R	8.2k 1/16W Metal Oxide	AA
R1007	VRS-CY1JF103JY	R	10k 1/16W Metal Oxide	AA
R1008	VRS-CY1JF183JY	R	18k 1/16W Metal Oxide	AA
R1009	VRD-RA2BE103JY	R	10k 1/8W Carbon	AA
R1012	VRS-CY1JF391JY	R	390 1/16W Metal Oxide	AA
R1021	VRS-CY1JF101JY	R	100 1/16W Metal Oxide	AA
R1022	VRS-CY1JF101JY	R	100 1/16W Metal Oxide	AA
R1023	VRD-RA2BE271JY	R	270 1/8W Carbon	AA
R1024	VRS-CY1JF101JY	R	100 1/16W Metal Oxide	AA
R1027	VRS-CY1JF104JY	R	100k 1/16W Metal Oxide	AA
R1031	VRS-CY1JF101JY	R	100 1/16W Metal Oxide	AA
R1032	VRS-CY1JF332JY	R	3.3k 1/16W Metal Oxide	AA
R1034	VRS-CY1JF103JY	R	10k 1/16W Metal Oxide	AA
R1035	VRD-RA2BE101JY	R	100 1/8W Carbon	AA
R1036	VRD-RA2BE103JY	R	10k 1/8W Carbon	AA
R1037	VRD-RA2BE103JY	R	10k 1/8W Carbon	AA
R1038	VRS-CY1JF562JY	R	5.6k 1/16W Metal Oxide	AA
R1039	VRS-CY1JF102JY	R	1k 1/16W Metal Oxide	AA
R1040	VRD-RA2BE103JY	R	10k 1/8W Carbon	AA
R1041	VRD-RA2BE104JY	R	100k 1/8W Carbon	AA

Ref. No.	Part No.	★	Description	Code
R1042	VRD-RA2BE101JY	R	100 1/8W Carbon	AA
R1043	VRS-CY1JF104JY	R	100k 1/16W Metal Oxide	AA
R1044	VRS-CY1JF101JY	R	100 1/16W Metal Oxide	AA
R1045	VRD-RA2BE101JY	R	100 1/8W Carbon	AA
R1046	VRS-CY1JF101JY	R	100 1/16W Metal Oxide	AA
R1047	VRD-RA2BE183JY	R	18k 1/8W Carbon	AA
R1048	VRS-CY1JF101JY	R	100 1/16W Metal Oxide	AA
R1049	VRD-RA2BE183JY	R	18k 1/8W Carbon	AA
R1050	VRD-RA2BE101JY	R	100 1/8W Carbon	AA
R1051	VRS-CY1JF101JY	R	100 1/16W Metal Oxide	AA
R1052	VRS-CY1JF104JY	R	100k 1/16W Metal Oxide	AA
R1053	VRD-RA2BE101JY	R	100 1/8W Carbon	AA
R1054	VRS-CY1JF101JY	R	100 1/16W Metal Oxide	AA
R1055	VRS-CY1JF332JY	R	3.3k 1/16W Metal Oxide	AA
R1056	VRS-CY1JF332JY	R	3.3k 1/16W Metal Oxide	AA
R1059	VRS-CY1JF103JY	R	10k 1/16W Metal Oxide	AA
R1061	VRS-CY1JF102JY	R	1k 1/16W Metal Oxide	AA
R1063	VRS-CY1JF103JY	R	10k 1/16W Metal Oxide	AA
R1064	VRD-RA2BE103JY	R	10k 1/8W Carbon	AA
R1065	VRD-RA2BE103JY	R	10k 1/8W Carbon	AA
R1072	VRS-CY1JF221JY	R	220 1/16W Metal Oxide	AA
R1073	VRS-CY1JF101JY	R	100 1/16W Metal Oxide	AA
R1074	VRS-CY1JF332JY	R	3.3k 1/16W Metal Oxide	AA
R1076	VRS-CY1JF102JY	R	1k 1/16W Metal Oxide	AA
R1078	VRS-CY1JF332JY	R	3.3k 1/16W Metal Oxide	AA
R1079	VRS-CY1JF332JY	R	3.3k 1/16W Metal Oxide	AA
R1087	VRD-RA2BE391JY	R	390 1/8W Carbon	AA
R1095	VRS-CY1JF101JY	R	100 1/16W Metal Oxide	AA
R1096	VRD-RA2BE103JY	R	10k 1/8W Carbon	AA
R1840	VRS-CY1JF395JY	R	3.9M 1/16W Metal Oxide	AA
R1841	VRS-CY1JF395JY	R	3.9M 1/16W Metal Oxide	AA
R1849	VRS-CY1JF271JY	R	270 1/16W Metal Oxide	AA
R1850	VRS-CY1JF681JY	R	680 1/16W Metal Oxide	AA
R1851	VRS-CY1JF101JY	R	100 1/16W Metal Oxide	AA
R1852	VRS-CY1JF101JY	R	100 1/16W Metal Oxide	AA
R1853	VRS-CY1JF101JY	R	100 1/16W Metal Oxide	AA
R1854	VRS-CY1JF103JY	R	10k 1/16W Metal Oxide	AA
R1855	VRD-RA2BE122JY	R	1.2k 1/8W Carbon	AA
R1856	VRS-CY1JF223JY	R	22k 1/16W Metal Oxide	AA
R1863	VRS-CY1JF185JY	R	1.8M 1/16W Metal Oxide	AA
R1864	VRS-CY1JF185JY	R	1.8M 1/16W Metal Oxide	AA
R1865	VRS-CY1JF473JY	R	47k 1/16W Metal Oxide	AA
R1866	VRS-CY1JF473JY	R	47k 1/16W Metal Oxide	AA
R1867	VRD-RA2BE103JY	R	10k 1/8W Carbon	AA
R1892	VRS-CY1JF562JY	R	5.6k 1/16W Metal Oxide	AA
R1894	VRS-CY1JF103JY	R	10k 1/16W Metal Oxide	AA
R1895	VRS-CY1JF103JY	R	10k 1/16W Metal Oxide	AA
R1896	VRD-RA2BE393JY	R	39k 1/8W Carbon	AA
R3501	VRS-CY1JF101JY	R	100 1/16W Metal Oxide	AA
R3502	VRS-CY1JF101JY	R	100 1/16W Metal Oxide	AA
R3503	VRD-RA2BE101JY	R	100 1/8W Carbon	AA
R3504	VRD-RA2BE101JY	R	100 1/8W Carbon	AA
R3505	VRD-RA2BE101JY	R	100 1/8W Carbon	AA
R3506	VRD-RA2BE101JY	R	100 1/8W Carbon	AA
R3507	VRD-RA2BE101JY	R	100 1/8W Carbon	AA
R3508	VRD-RA2BE101JY	R	100 1/8W Carbon	AA

SWITCHES

⚠ S701	QSW-PA006WJZZ	R	Switch, POWER	AG
S1001	QSW-K0077GEZZ+	R	Switch, CH UP	AC
S1002	QSW-K0077GEZZ+	R	Switch, CH DOWN	AC
S1003	QSW-K0077GEZZ+	R	Switch, VOL. UP	AC
S1004	QSW-K0077GEZZ+	R	Switch, VOL. DOWN	AC
S1005	QSW-K0077GEZZ+	R	Switch, MENU	AC

BALUNES

FB701	RBLN-0095GEZZ+	R	Balun	AC
⚠ FB703	RBLN-0037CEZZY	R	Balun	AB
FB751	RBLN-0037CEZZY	R	Ferrite Bead	AB

MISCELLANEOUS PARTS

⚠ F701	QFS-C3229CEZZ	R	Fuse, 3.15A/250V	AD
FH701	QFSHD1013CEZZ+	R	Fuse Holder	AC
FH702	QFSHD1014CEZZ+	R	Fuse Holder	AC
J352	QJAKJ0101SEZZ	R	Jack, 7Pin	AE
J401	QJAKGA015WJZZ	R	Jack, 9Pin	AH
J405	QTANJ0644CEZZ	R	AV-1 In Terminal	AM
J407	QJAKG0074CEZZ	R	AV-2 In Jack	AF
P301	QPLGNA109WJZZ	R	Plug, 4Pin(S)	AB
P403	QPLGNA107WJZZ	R	Plug, 2Pin(FV)	AA
P404	QPLGNA107WJZZ	R	Plug, 2Pin(FV)	AA
P601	QPLGN0660CEZZ	R	Plug, 6Pin(F)	AC
P602	QPLGNA110WJZZ	R	Plug, 5Pin(H)	AB
P1002	QPLGNA110WJZZ	R	Plug, 5Pin(BC)	AB
P1102	QPLGNA110WJZZ	R	Plug, 5Pin(TT)	AB
P701	QPLGN0260CEZZ	R	Plug, 2Pin(M1-2)	AC
P702	QPLGN0269GEZZ	R	Plug, 2Pin	AB
P1001	QPLGNA136WJZZ	R	Plug, 5Pin(K)	AB
P1103	QPLGNA112WJZZ	R	Plug, 7Pin(TX)	AB
P1104	QPLGNA111WJZZ	R	Plug, 6Pin(TE)	AB
RDA303	PRDAR0259PEFW	R	Heat Sink for D392	AE
RDA304	PRDARA055WJFW	R	Heat Sink for IC301	AH
RDA501	PRDARA010WJFW	R	Heat Sink for IC501	AD
RDA602	PRDAR0224PEFW	R	Heat Sink for Q602	AF
RDA701	PRDARA061WJFW	R	Heat Sink for Q701	AG
RMC1001	RRMCUA009WJZZ	R	Remote Receiver	AF
⚠ RY701	RRLYJ0093CEZZ	R	Relay	AG
	LHLDP1066PE00	R	Holder	AC

DUNTKA599WEC8
PWB-B CRT UNIT

TRANSISTORS

Q853	VS2SC3789//2E	R	2SC3789	AF
Q854	VS2SC3789//2E	R	2SC3789	AF
Q855	VS2SC3789//2E	R	2SC3789	AF
Q894	VS2PA1015Y+-1+	R	2PA1015Y	AC

DIODES

D859	VHD1SS119//-1Y	R	1SS119	AA
D898	VHD1SS119//-1Y	R	1SS119	AA
D896	RH-EX0616GEZZY	R	Zener Diode, 5.6V	AA

COIL

L851	VP-MK820K0000+	R	Peaking, 82µH	AB

CAPACITORS

C851	VCKYPA1HB271K+	R	270p	50V	Ceramic	AB
C852	VCKYPA1HB271K+	R	270p	50V	Ceramic	AB
C853	VCKYPA1HB221K+	R	220p	50V	Ceramic	AA
C880	RC-KZ0153CEZZ	R	1000p	3kV		AB
C893	VCEA0A1CW336M+	R	33	16V	Electrolytic	AB

RESISTORS

R849	VRD-RA2BE271JY	R	270	1/8W	Carbon	AA
R850	VRD-RA2BE470JY	R	47	1/8W	Carbon	AA
R851	VRD-RA2BE470JY	R	47	1/8W	Carbon	AA
R852	VRD-RA2BE470JY	R	47	1/8W	Carbon	AA
R854	VRD-RA2BE271JY	R	270	1/8W	Carbon	AA
R855	VRD-RA2BE271JY	R	270	1/8W	Carbon	AA
⚠ R859	VRS-VV3DB123J	R	12k	2W	Metal Oxide	AA
⚠ R861	VRS-VV3DB123J	R	12k	2W	Metal Oxide	AA
⚠ R863	VRS-VV3DB123J	R	12k	2W	Metal Oxide	AA
R864	VRD-RA2BE470JY	R	47	1/8W	Carbon	AA
R876	VRD-RA2BE121JY	R	120	1/8W	Carbon	AA
R877	VRD-RA2BE121JY	R	120	1/8W	Carbon	AA
R878	VRD-RA2BE121JY	R	120	1/8W	Carbon	AA
R880	VRD-RM2HD332JY	R	3.3k	1/2W	Carbon	AA
R881	VRD-RM2HD332JY	R	3.3k	1/2W	Carbon	AA
R882	VRD-RM2HD332JY	R	3.3k	1/2W	Carbon	AA
R889	VRD-RA2BE821JY	R	820	1/8W	Carbon	AA
R891	VRD-RA2BE102JY	R	1k	1/8W	Carbon	AA
R892	VRD-RA2BE391JY	R	390	1/8W	Carbon	AA
R894	VRD-RA2BE152JY	R	1.5k	1/8W	Carbon	AA
R895	VRD-RA2EE561JY	R	560	1/4W	Carbon	AA

MISCELLANEOUS PARTS

P860	QPLGNA110WJZZ	R	Plug, 5Pin(H)	AB
P880	QPLGNA136WJZZ	R	Plug, 5Pin(K)	AB
SC851	QSOCV0016PEZZ	R	Socket, 12Pin	AF

Ref. No.	Part No.	★	Description	Code

DUNTKC038WEA2
PWB-D TEXT UNIT

INTEGRATED CIRCUITS

IC1200	VHiSAA5264+1E	R	SAA5264	BE
IC1260	VHiNJM2870F33Y	R	I.C.	AF

TRANSISTORS

Q1250	VS2PD601AR/-1Y	R	2PD601AR	AB
Q1251	VS2PD601AR/-1Y	R	2PD601AR	AB
Q1252	VS2PD601AR/-1Y	R	2PD601AR	AB

DIODES

D1200	RH-EX0619GEZZY	R	Zener Diode, 6.2V	AA
D1201	RH-EX0619GEZZY	R	Zener Diode, 6.2V	AA
D1205	RH-EX0603GEZZY	R	Zener Diode	AA
D1211	VHD1SS119//-1Y	R	1SS119	AA
D1212	VHD1SS119//-1Y	R	1SS119	AA
D1213	VHD1SS119//-1Y	R	1SS119	AA
D1217	VHD1SS119//-1Y	R	1SS119	AA
D1218	VHD1SS119//-1Y	R	1SS119	AA
D1219	RH-EX0610GEZZY	R	Zener Diode, 4.8V	AA
D1220	VHD1SS119//-1Y	R	1SS119	AA
D1221	VHD1SS119//-1Y	R	1SS119	AA
D1222	VHD1SS119//-1Y	R	1SS119	AA
D1223	VHD1SS119//-1Y	R	1SS119	AA
D1224	VHD1SS119//-1Y	R	1SS119	AA
D1225	VHD1SS119//-1Y	R	1SS119	AA

PACKAGED CIRCUIT

X1200	RCRSB0281CEZZ	R	Crystal	AG

COIL

L1202	VP-DF101K0000Y	R	Peaking, 100µH	AB

CAPACITORS

C1200	VCFYFA1HA224J+	R	0.22	50V	Mylar	AB
C1201	VCKYCY1CF224ZY	R	0.22	16V	Ceramic	AB
C1202	VCEA0A1CW107M+R	R	100	16V	Electrolytic	AC
C1203	VCKYCY1CF224ZY	R	0.22	16V	Ceramic	AB
C1204	VCEA0A1CW107M+R	R	100	16V	Electrolytic	AC
C1206	VCCCCY1HH330JY	R	33p	50V	Ceramic	AA
C1207	VCCCCY1HH330JY	R	33p	50V	Ceramic	AA
C1208	VCKYCY1CF224ZY	R	0.22	16V	Ceramic	AB
C1209	VCEA0A1CW107M+R	R	100	16V	Electrolytic	AC
C1212	VCKYCY1CF104ZY	R	0.1	16V	Ceramic	AA
C1213	VCEA0A1HW225M+R	R	2.2	50V	Electrolytic	AB
C1220	VCKYCY1CF104ZY	R	0.1	16V	Ceramic	AA
C1221	VCKYCY1CF104ZY	R	0.1	16V	Ceramic	AA
C1222	VCKYCY1CF104ZY	R	0.1	16V	Ceramic	AA
C1250	VCCCCY1HH220JY	R	22p	50V	Ceramic	AA
C1260	VCEA0A1HW474M+R	R	0.47	50V	Electrolytic	AB
C1261	VCEA0A1HW104M+R	R	0.1	50V	Electrolytic	AB
C1262	VCKYCY1HF103ZY	R	0.01	50V	Ceramic	AA
C1263	VCCCCY1HH101JY	R	100p	50V	Ceramic	AA

RESISTORS

RJ1201	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
RJ1202	VRS-CY1JF000JY	R	0	1/16W	Metal Oxide	AA
R1200	VRS-CY1JF472JY	R	4.7k	1/16W	Metal Oxide	AA
R1201	VRS-CY1JF472JY	R	4.7k	1/16W	Metal Oxide	AA
R1202	VRS-CY1JF472JY	R	4.7k	1/16W	Metal Oxide	AA
R1203	VRS-CY1JF472JY	R	4.7k	1/16W	Metal Oxide	AA
R1204	VRS-CY1JF472JY	R	4.7k	1/16W	Metal Oxide	AA
R1205	VRS-CY1JF472JY	R	4.7k	1/16W	Metal Oxide	AA
R1206	VRS-CY1JF472JY	R	4.7k	1/16W	Metal Oxide	AA
R1207	VRS-CY1JF472JY	R	4.7k	1/16W	Metal Oxide	AA
R1208	VRS-CY1JF472JY	R	4.7k	1/16W	Metal Oxide	AA
R1209	VRS-CY1JF472JY	R	4.7k	1/16W	Metal Oxide	AA
R1210	VRS-CY1JF472JY	R	4.7k	1/16W	Metal Oxide	AA
R1211	VRS-CY1JF472JY	R	4.7k	1/16W	Metal Oxide	AA
R1212	VRS-CY1JF472JY	R	4.7k	1/16W	Metal Oxide	AA
R1213	VRS-CY1JF472JY	R	4.7k	1/16W	Metal Oxide	AA
R1214	VRS-CY1JF472JY	R	4.7k	1/16W	Metal Oxide	AA
R1215	VRS-CY1JF472JY	R	4.7k	1/16W	Metal Oxide	AA
R1216	VRS-CY1JF472JY	R	4.7k	1/16W	Metal Oxide	AA
R1217	VRS-CY1JF472JY	R	4.7k	1/16W	Metal Oxide	AA
R1218	VRS-CY1JF472JY	R	4.7k	1/16W	Metal Oxide	AA
R1219	VRS-CY1JF472JY	R	4.7k	1/16W	Metal Oxide	AA
R1220	VRS-CY1JF472JY	R	4.7k	1/16W	Metal Oxide	AA
R1221	VRS-CY1JF472JY	R	4.7k	1/16W	Metal Oxide	AA
R1222	VRS-CY1JF472JY	R	4.7k	1/16W	Metal Oxide	AA
R1223	VRS-CY1JF472JY	R	4.7k	1/16W	Metal Oxide	AA
R1224	VRS-CY1JF472JY	R	4.7k	1/16W	Metal Oxide	AA
R1227	VRS-CY1JF472JY	R	4.7k	1/16W	Metal Oxide	AA
R1228	VRS-CY1JF472JY	R	4.7k	1/16W	Metal Oxide	AA
R1233	VRS-CY1JF102JY	R	1k	1/16W	Metal Oxide	AA
R1234	VRS-CY1JF102JY	R	1k	1/16W	Metal Oxide	AA
R1236	VRS-CY1JF243JY	R	24k	1/16W	Metal Oxide	AA
R1246	VRS-CY1JF101JY	R	100	1/16W	Metal Oxide	AA
R1247	VRS-CY1JF101JY	R	100	1/16W	Metal Oxide	AA
R1251	VRS-CY1JF104JY	R	100k	1/16W	Metal Oxide	AA
R1253	VRS-CY1JF104JY	R	100k	1/16W	Metal Oxide	AA
R1254	VRS-CY1JF222JY	R	2.2k	1/16W	Metal Oxide	AA
R1255	VRS-CY1JF222JY	R	2.2k	1/16W	Metal Oxide	AA
R1260	VRS-CY1JF154JY	R	150k	1/16W	Metal Oxide	AA
R1261	VRD-RM2HD221JY	R	220	1/2W	Carbon	AA
R1262	VRD-RA2BE103JY	R	10k	1/8W	Carbon	AA
R1263	VRD-RA2BE103JY	R	10k	1/8W	Carbon	AA
R1264	VRD-RA2BE103JY	R	10k	1/8W	Carbon	AA
R1265	VRD-RA2BE103JY	R	10k	1/8W	Carbon	AA
R1266	VRS-CY1JF681JY	R	680	1/16W	Metal Oxide	AA
R1267	VRS-CY1JF681JY	R	680	1/16W	Metal Oxide	AA
R1268	VRS-CY1JF681JY	R	680	1/16W	Metal Oxide	AA
R1274	VRS-CY1JF222JY	R	2.2k	1/16W	Metal Oxide	AA
R1275	VRS-CY1JF222JY	R	2.2k	1/16W	Metal Oxide	AA
R1276	VRS-CY1JF222JY	R	2.2k	1/16W	Metal Oxide	AA
R1277	VRS-CY1JF681JY	R	680	1/16W	Metal Oxide	AA
R1278	VRS-CY1JF681JY	R	680	1/16W	Metal Oxide	AA
R1279	VRS-CY1JF681JY	R	680	1/16W	Metal Oxide	AA
R1280	VRS-CY1JF272JY	R	2.7k	1/16W	Metal Oxide	AA
R1281	VRD-RA2BE471JY	R	470	1/8W	Carbon	AA
R1282	VRD-RA2BE471JY	R	470	1/8W	Carbon	AA
R1283	VRD-RM2HD271JY	R	270	1/2W	Carbon	AA
R1284	VRS-CY1JF103JY	R	10k	1/16W	Metal Oxide	AA

MISCELLANEOUS PARTS

P1202	QPLGNA110WJZZ	R	Plug, 5Pin(TT)	AB
P1203	QPLGNA112WJZZ	R	Plug, 7Pin(TX)	AB
P1204	QPLGNA111WJZZ	R	Plug, 6Pin(TE)	AB

MISCELLANEOUS PARTS

Ref. No.	Part No.	★	Description	Code
⚠ ACC701	QACCZA019WJPZ	R	AC Cord	AH
SP301	VSP1206PB746A	R	Speaker (L)	AN
SP302	VSP1206PB746A	R	Speaker (R)	AN
	QCNW-A922WJN1	R	Connecting Cord	AE
	QCNW-A923WJN1	R	Connecting Cord	AE
	QCNW-A991WJN1	R	Connecting Cord	AE
	QCNW-A992WJN1	R	Connecting Cord	AF
	QCNW-B266WJZZ	R	Connecting Cord	AF
	QCNW-B837WJZZ	R	Connecting Cord	
	QCNW-B838WJZZ	R	Connecting Cord	
	QCNW-B839WJZZ	R	Connecting Cord	
	GBFL-0011PE00	R	Baffle	AF

SUPPLIED ACCESSORIES

ACCESSORIES

	RRMCG1606PESB	R	Infrared Remote Control Unit	AT
	TiNS-A905WJZZ	R	Operation Manual	

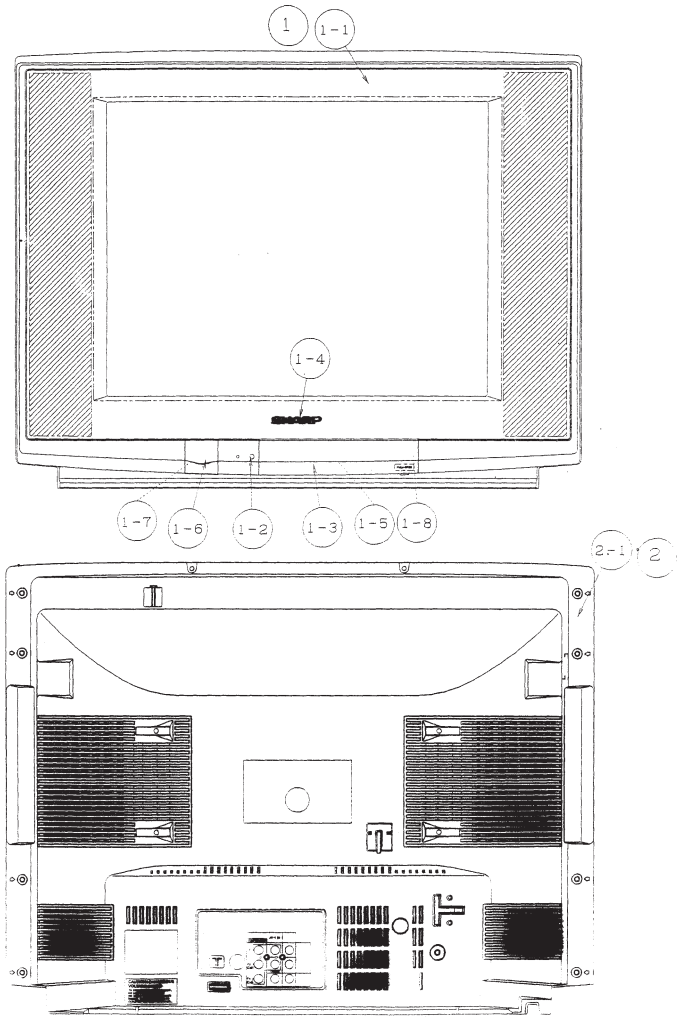
PACKING PARTS
(NOT REPLACEMENT ITEM)

SPAKCA887WJZZ	–	Packing Case	—
SPAKP0122PEZZ	–	Wrapping Paper	—
SPAKXA308WJZZ	–	Packing Add.	—
SSAKA0031PEZZ	–	Polyethylene Bag	—

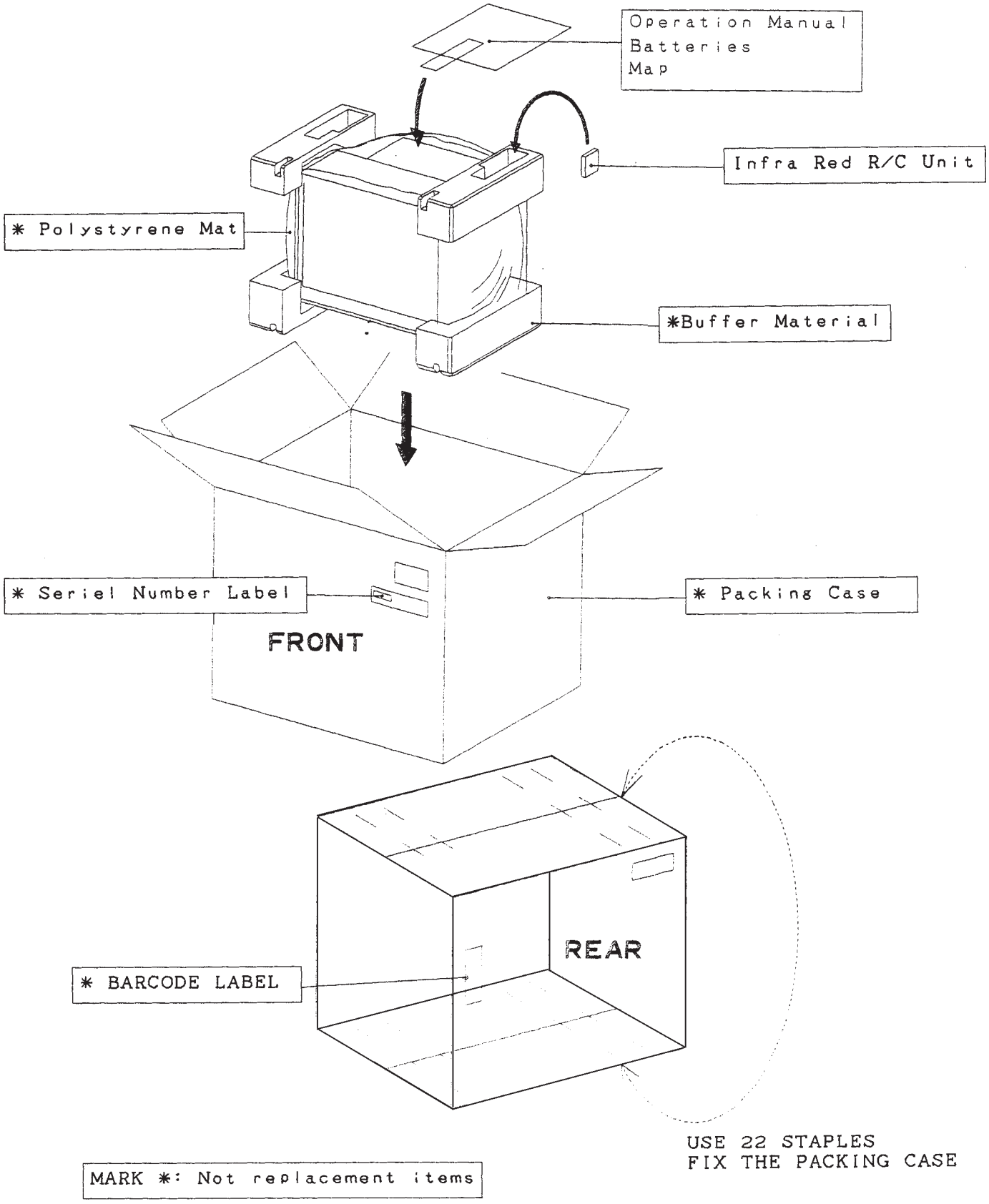
CABINET PARTS

Ref. No.	Part No.	★	Description	Code
1	CCABAA384WEV0	R	Front Cabinet Ass'y	
1-1	*Not Available*	–	Front Cabinet	—
1-2	GCOVAA527WJSA	R	LED Cover	
1-3	GDORFA054WJSA	R	Door	
1-4	HBDGB3142CESA	R	SHARP Badge	AG
1-5	HiNDPA592WJSA	R	Indication Plate	AE
1-6	JBTN-A189WJSA	R	Power Button	
1-7	MSPRC0005PEFW	R	Power Button Spring	AB
1-8	MSPRPA031WJFW	R	Door Spring	AB
2	CCABBA277WEV0	R	Rear Cabinet Ass'y	
2-1	*Not Available*	–	Rear Cabinet	—

CABINET PARTS LOCATION



PACKING OF THE SET



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